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THE OFFICIAL ORGAN OF THE
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NO. I.

STANDARDIZATION IN THE TREATMENT OF FRACTURES.

William Francis Campbell, F. A. C. S.

Brooklyn, New York.

MUCH that is useful in the surgery of war will be discarded in civil practice. The strain and stress of war necessitates a technique the crude and hurried character of which would be inexcusable in civil life. War surgery is for the most part an exemplification of Chatelier's Law—"a body in a state of equilibrium acted upon by external stress tends to readjust itself by minimizing the stress." War imposes a tremendous strain upon the surgeon and his resources; the readjustment is a compromise between technical ideals and the exigencies of the situation. The refinements of the civil hospital are not possible: The shifting battle line results in a disproportion of work to capacity; there is an irregularity and an urgency of demands that discounts all anticipation. Thus it becomes difficult to stabilize technique or standardize procedures.

There is one department of military surgery however which has proved a notable exception. *The treatment of fractures.*

One of the outstanding contributions to military surgery has been made by the Medical Department of the United States Army. Four months after the United States entered the war a Board of Medical Officers was directed to investigate and report upon "the advisability of standardizing the manufacture of splints and appliances, and publishing a manual describing their proper use." The investigations of this Board were directed toward the attainment of the following ideals:

1. Efficiency and correct mechanical principles."
2. "Simplicity of design and low cost of construction."
3. Transportability, in order that an efficient splint may be applied at the front and remain in situ until the patient reaches the more or less permanent Base Hospital."

Thus this Board undertook a problem that has long awaited a practical solution. The treatment of fractures had been woefully neglected for many years—the fascinating problems of abdominal surgery had for a long time received the spot-light of surgical attention; as a matter of fact fractures have been the by-

product of every surgical service; as a rule relegated to the care of the House-staff. Only intermittently have they received the serious consideration to which they are entitled. It is obvious that the economic value of the hospital to the community could be much enhanced by improved methods in the treatment of fractures.

The fundamental principles of fracture treatment have been well taught, but the application of these principles have been crude and inadequate. How to arrive at an adequate *reduction* and a satisfactory *retention* has been obscured by the multiplicity of apparatus reflecting the ingenuity of a host of operators, each having some point of exceptional merit, but only contributing to ultimate confusion and the entanglement of a problem which should be comparatively simple.

It is surprising to observe how simple the fracture problem becomes when reduced to its lowest practical terms. The apparatus is uncomplicated and comparatively cheap. There is no need of any special training to insure familiarity with its efficient application. It is only necessary to appreciate the mechanical principles underlying these methods—namely, fixation and traction, and to follow the simple directions in applying the splints to the living model.

General Considerations:

The object of the splint is to immobilize the injured structures so that the structures may remain at rest in normal alignment: Thus the parts are placed in the most favorable position to obtain:

- a. Union in the fractured bones.
- b. Restoration of normal function.

Perfect immobilization of a fractured bone involves two mechanical principles:

- a. *Fixation*.
- b. *Traction*.

It is necessary to understand this twofold principle involved in a satisfactory immobilization in order to appreciate a proper application of the splint. If we were dealing with a fractured bone with no muscular attachments, immobilization could be satisfactorily obtained by simple fixation—the injured structures would thus be placed at rest and the parts retained in alignment after the alignment had been secured—nothing further than fixation would be required. But we are practically dealing with bones to which muscles are attached, and these muscular attachments mean muscular contractions, which unless overcome will result in bony displacement and malposition.

Thus, *traction* must be added to *fixation* to obtain muscular relaxation and proper alignment by a pull in the direction of normal anatomical lines.

Traction obliterates muscular contraction.

Traction produces muscular rest as fixation produces bony rest.

To these two important mechanical principles must be added a definite aim or ideal apart from perfect anatomical alignment. In our treatment of fractures we must acquire *the habit of thinking in terms of ultimate function*. A healed wound is quite incomplete unless it predicates a working man. In the handling of our fracture cases at the Base Hospitals the aim has been something beyond

the mere attainment of a perfect anatomical result—there must be in addition *physiological restoration*. We must insist not merely upon healed tissues but efficient tissues. If all that we can secure in a broken bone is solidity, our treatment is sadly deficient. We must aim for *bony integrity* which implies restoration of structure plus function. Thus we have in the treatment of fractures certain mechanical principles to be applied—fixation and traction, and a definite goal toward which we aim, *viz.*, restoration of function.

Much of the advance in simplified technique and standardized apparatus we owe to those two persistent advocates—Goldthwaite of Boston and Jones of Liverpool—their contribution to this phase of surgery is not merely notable but inestimable.

To Hugh Owen Thomas must be accorded a belated appreciation of the principles which he advocated fifty years ago. The Thomas splint has been employed extensively in certain forms of disease—but only in the present war has it reached its maturity in a full appreciation of its usefulness over a wide field of application. In the upper as well as the lower extremity the Thomas splint has a larger field of usefulness than all others. It must easily be accorded first place in the contribution it has made to the comfort of the patient and the achievement of successful results.

For purposes of description we rely on the very concise and lucid accounts of the splints employed as given in the manual of the U. S. A., taking the liberty of making our own comments as further elucidation of the text is required.

In all there are but six splints required to meet all the indications of fractures of the upper and lower extremities and these are divided as follows:

Upper Extremity:

1. Thomas' Traction Arm Splint. (Hinged modification when indicated.)

2. Jones' Humerus Traction Splint.

3. Jones' "Cock-up" wrist and forearm splint

Lower Extremity:

1. Thomas' Traction Leg Splint. (Hinged Half-Ring modification when indicated.)

2. Hodgen Anterior Thigh and Leg Splint.

3. Cabot Posterior Wire Leg Splint.

Here then are six types of splints that contribute in the most efficient manner to the treatment of bone and joint injuries. These we believe should be taught the student as representing the fundamentals in the immobilization of the extremities. To these may be added the Basswood splint, plaster of Paris bandages and such modifications as the experience and ingenuity of the surgeon may suggest. The great need at the present time is standardization of fundamentals, and familiarity with basic principles; these well assimilated, there need be no restrictions upon the inventive and creative genius of those who prefer new and original methods.

Description of Splints and Their Uses:

1. *Thomas Traction Arm Splint* (Fig. I.)

"The splint consists of a padded circular ring $7\frac{1}{2}$ inches in diameter and two rods 34 inches in length. At the ring these rods

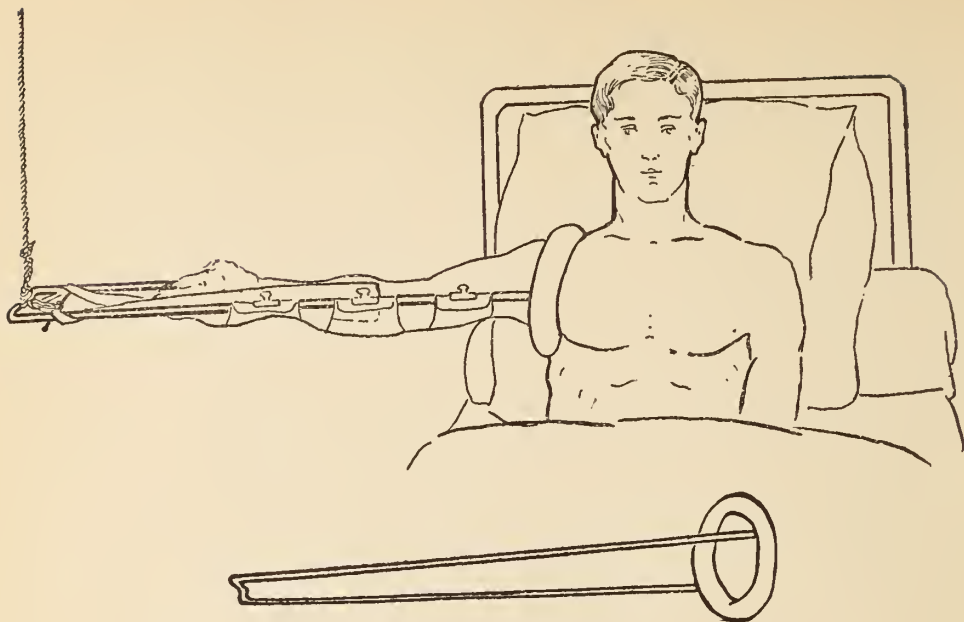


Fig. 1. Thomas Traction Arm Splint (Manual U. S. Army).

are $7\frac{1}{2}$ inches apart and at the bottom they are continuous in an indented or notched end, $2\frac{1}{2}$ inches in width, about which the traction bands are wound and knotted. The space between the rods may be widened or narrowed by bending them outward or inwards" (Manual U. S. Army).

It will be noted in Figure I that the ring is placed well over the shoulder, the arm is supported by muslin slings clipped to the two side rods, and traction is obtained by applying strips of adhesive plaster to the forearm, the lower ends of which are fastened to the indentation or notch at the lower end of the splint. The distal end of the splint must be supported.

Indications: Injuries to the shoulder joint, injuries to the shaft of the humerus, injuries to the elbow joint, injuries to the forearm. It will be observed that this splint can only be used when the patient is recumbent. Murray has modified the Thomas arm splint by making a joint between the rods and the ring, thus allowing the injured limb to be brought to the side of the body, a very important factor if the patient is ambulatory or is to be transported.

2. Jones Humerus Traction Splint (Fig. II).

"This splint consists of a padded half-ring to fit in the axilla like a crutch, $7\frac{1}{2}$ inches in diameter. The wire of the half-ring is continued to form a complete circle, which is bent on itself at right angles to outline a quarter sector of a sphere. The right angle wire half-circle extends out over the shoulder and upper arm and is not padded. The wire rods $\frac{1}{4}$ inch in diameter descend from the center of the padded axillary crutch and from the center of the right angle unpadded shoulder portion of the ring. The inside rod next to the body is 14 inches long and the outside rod is 18 inches long, curved outward slightly over the convexity of the deltoid. The rods terminate in indentations or notches about which the humeral traction bands are wound and tied. The rods

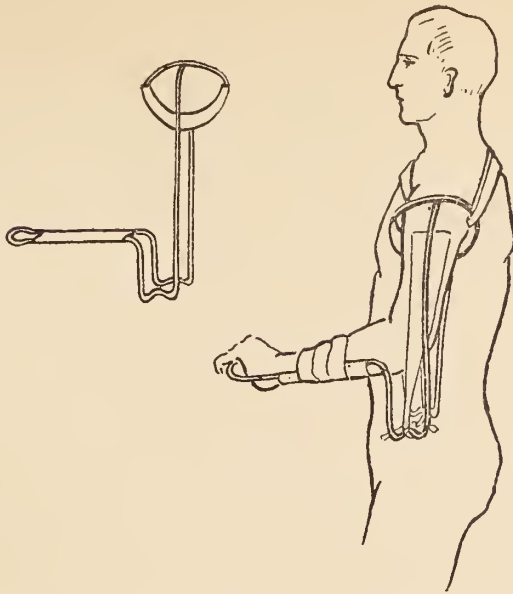


Fig. II. Jones Humerus Traction Splint (Manual U. S. A.).

then ascend for four inches and at this point are bent at a right angle in the same plane as the humeral rods; they then extend forward for 12 inches, $4\frac{1}{2}$ inches apart to form a continuous splint for forearm, wrist, and metacarpal fixation." (Manual U. S. Army.)

Indications: Injuries to shaft of humerus in which traction on the humerus is desirable and where flexion of the elbow joint is required:

Injuries to the elbow joint where the position of flexion is required.

Injuries to the forearm.

Traction is obtained by applying strips of adhesive to the arm, the lower ends of which are fastened to the indentation or notch at the elbow angle.

Comment: This is one of the most satisfactory splints that has ever been devised for injuries of the humerus requiring traction.

3. Jones "Cock-up" Wrist and Forearm Splint. (Fig. III.)

"This splint consists of a thin sheet-iron hollow trough attached to a flat soft-iron rod $\frac{3}{4}$ of an inch in width and $\frac{1}{8}$ of an inch in thickness. The flat iron rod extends from the sheet iron trough about 10 inches, bending upwards at about 6 inches distally from the edge of the trough. At the distal end of the rod is riveted by a single rivet a very light flat iron cross-bar 3 inches in length. Any degree of dorsal flexion of the hand may be obtained by varying the bend of the central iron rod." (Manual U. S. Army.)

Indications: It is evident that this splint is used to retain the position of dorsal flexion of the hand in injuries to the wrist and



Fig. III. Jones "Cock-up" Wrist and Forearm Splint (Manual U. S. A.).

in lesions which produce "wrist-drop." The splint is applied, and retained by means of bandages or adhesive plaster.

4. *Thomas Traction Leg Splint.* (Fig. IV.)

"The splint consists of a padded ring, slightly ovoid in shape, set upon two iron rods at an angle of 55 degrees with the outer rod. The rods are $\frac{3}{8}$ of an inch in diameter. At the inner and shorter of these two rods the ring is twice as heavily padded as at the outer, and the ring is symmetrically depressed at either side of the inner rod to form a concavity which hugs the ischial ramus and fits snugly around the ischial tuberosity. A ring of average size measures across the long diameter $9\frac{1}{2}$ inches and across the short diameter 9 inches. The outer rod descends from the ring vertically for $2\frac{1}{2}$ inches and then inclines towards the inner rod. At the starting point of the inner rod the two wires are $8\frac{1}{2}$ inches apart and at the bottom they are continuous in an indented or notched end, $3\frac{1}{2}$ inches in width, about which the traction bands are wound and knotted. If desired the splint may be bent at the knee." (Manual U. S. Army.)

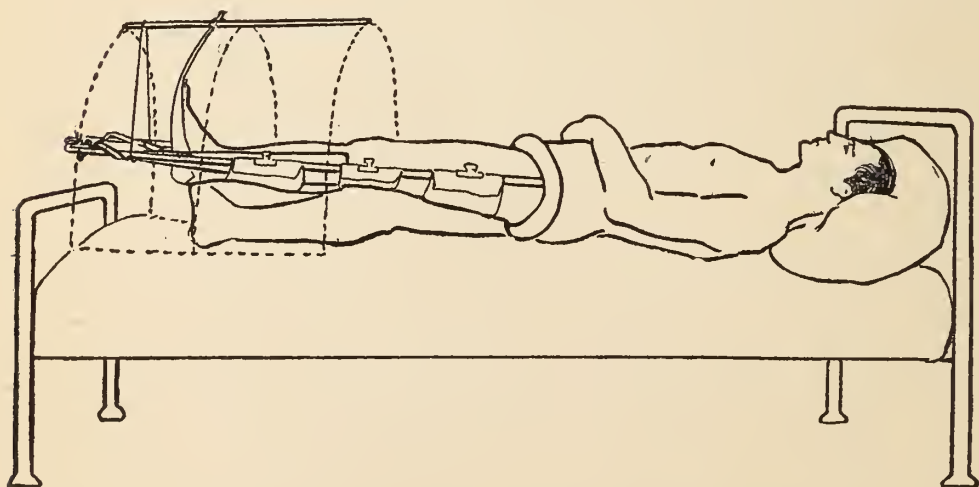


Fig. IV. Thomas Traction Leg Splint (Manual U. S. A.).

It will be observed in Fig. IV that the ring hugs the ischial tuberosity and ascending ischial ramus. The extremity is supported by muslin slings clipped to the two side rods, and traction is obtained by applying strips of adhesive plaster to the sides of the leg, the lower ends of which are fastened to the indentation or notch at the lower end of the splint. The distal end of the splint must be supported.

Indications: Injuries to the hip-joint, injuries to the shaft of the femur, injuries to the knee-joint and injuries to the leg.

There is also a *Hinged Half-Ring Modification of the Thomas Splint* which may be used to advantage where there is a wound of the groin or where a complete ring is not desirable.

5. *Hodgen Anterior Thigh and Leg Splint* (Fig. V).

"This splint consists of a quadrilateral frame of $\frac{3}{8}$ inch wire, the inner rod is 35 inches long, the outer rod is 39 inches long, the distal end of the rods are continuous and form an end 5 inches in width; at $11\frac{1}{2}$ inches from the proximal end of the inner rod and $15\frac{1}{2}$ inches from the proximal end of the outer rod both rods are bent to allow flexion of the knee to approximately 30 degrees. Two $\frac{3}{16}$ inch wire half circles unite the two rods. One half-circle spans the rods, being attached to the upper ends of the rods, the other half-circle spans the rods immediately distal to the knee bend. This splint affords no opportunity for traction and counter pressure. It is a rigid lateral and anterior support from which the limb is suspended by means of slings, snapped or pinned to the lateral rods. It is useful chiefly where overhead frames are

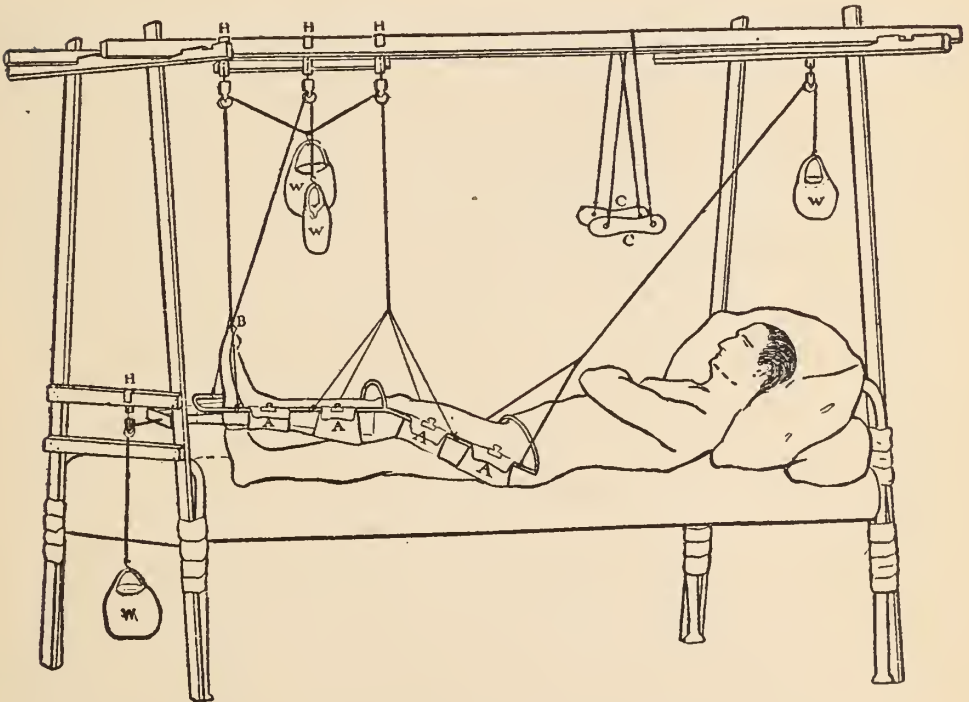


Fig. V. Hodgen Anterior Thigh and Leg Splint Suspended from Balkan Trome (Manual U. S. A.).

available and suspension may be obtained by weights and pulleys." (Manual U. S. Army.)

Indications: One of the most useful splints for suspension of the limb from overhead support in injuries to the thigh and leg.

6. Cabot Posterior Wire Leg Splints (Fig. VI).

"The splint consists of a quadrilateral form of $\frac{1}{4}$ inch wire 7 inches in width at the upper portion, which is bent at right angles and concave to conform to the convex surface of the upper thigh. It narrows at the heel and at this point is bent upward to form a right angle foot piece 12 inches in height and 4 inches wide. For use, this frame of wire is bandaged and padded (see Fig. VI B.) and usually bent slightly at the knee." (Manual U. S. Army.)

Indications: Any injuries to the soft parts of the lower limb requiring immobilization, injuries to knee or ankle in which temporary fixation is required, fractures of the fibula or tarsus. The splint is retained in position by bandages or adhesive plaster straps.

Finally, the efficiency of the arm and leg splints is much enhanced by the use of overhead frames (see Fig. V). These frames permit overhead suspension by means of pulleys and counterweights which is of inestimable advantage in securing a position of the limb that produces physiological rest in the muscles, and thus eliminates the contraction which tends to pull the fragments out of position and thus produce deformity. The overhead frames are a valuable contribution to the problem of immobilization and the comfort of the injured patient.

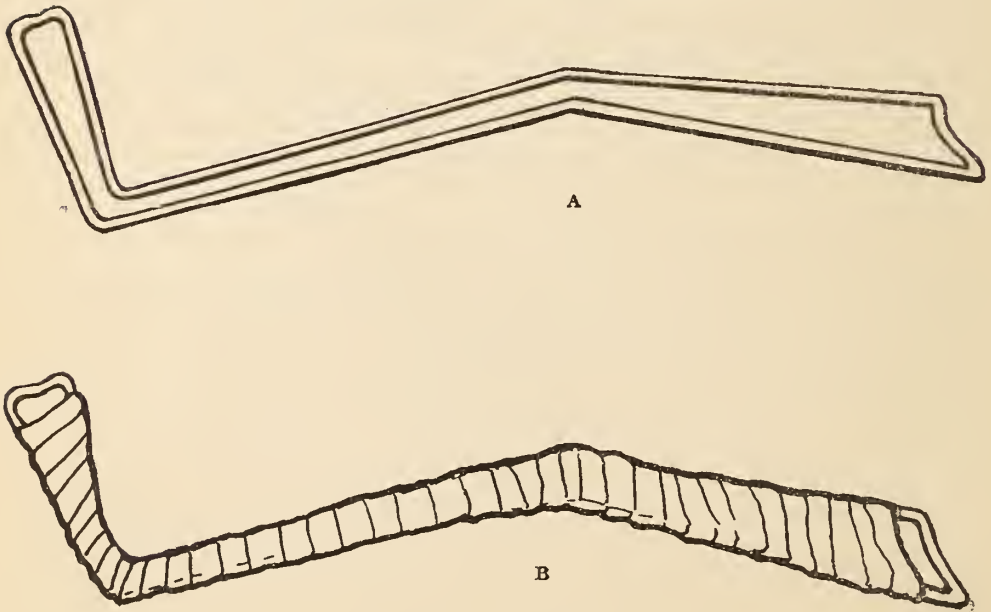


Fig. VI. Cabot Posterior Wire Leg Splint (Manual U. S. A.).

THE IDENTIFICATION OF THE GLYCOSURIAS *

Frank Bethel Cross, M. D.

Brooklyn, New York.

IF we trace the course of the nutritive elements of food taken into the body, we find that two avenues of entrance into the blood-stream are open to the varied products of intestinal digestion: one, the pathway of the lacteals of the villi, via the lead-thoracic duct; the other, that of the capillaries of the villi, leading in turn into the portal system and thence into the right auricle. Fats uniformly follow the lymphatic circulation, but proteins and carbohydrates are absorbed mainly by the blood-vessel system.

The carbohydrates, having undergone inversion in the small bowel into dextrose (grape sugar or glucose), levulose and galactose, pass in the form of these monosaccharids directly into the blood-stream and are carried to the liver, where the excess sugar beyond .10-.12% is withdrawn from the circulation and stored as liver glycogen ($C^6H^{10}O_5$)_n. Discovered by Claude Bernard in 1857, glycogen, an "animal starch" giving a wine-red reaction with iodine instead of the deep blue response of vegetable starch, appears to be a polysaccharid, which, when needed by the animal economy, is again resolved into dextrose and absorbed as such from the liver cells back into the circulation.

As a result of this storage scheme, the amount of sugar in the blood rarely rises above normal. When, however, dietary indiscretions are committed and a heavy intestinal overload of starch or sugar is incurred, the blood sugar will rise beyond the usual per cent. and a hyperglycemia result. Under ordinary conditions an intake of 500 gm. of starch can be utilized in 24 hours without this hypersolution of sugar ensuing. Beyond this intake, the machine is overloaded and a glycosuria results, the sugar in the urine spelling the response of the body to the hyperglycemia. This limit is spoken of as the "assimilation limit" of the carbohydrate and has been found to vary with the variety of sugar or starch, the necessity of the digestion of starch acting as a drag to its rapid absorption and appearance in the blood-stream.

An additional storage-site for glycogen is in the voluntary muscles, of which it is a normal constituent, and where it lies in reserve to be called upon in the event of great carbohydrate drain. A further precaution by nature to save the body from the vicissitudes of hyperglycemia is the conversion of some of the sugar excess into fat and its storage as such in the adipose tissue of the body.

When, under the urge of starvation or the increased metabolism of marked muscular exertion, the consumption of glycogen proceeds beyond the normal, the storage glycogen is then utilized and, by hydration in the presence of an assumed and as yet unproven enzyme in the tissues, is again converted into dextrose, to be burned as such into CO_2 and water. The need for sugar in the

* Read before the Brooklyn Society of Internal Medicine, May 24, 1918.

nutrition of the body is so great that in starvation glycogen can be manufactured out of body protein (animo-acids) and even from the fats of the body by first breaking them up into animo-acids and reforming them into glucose.

The entire system of *regulation of the supply of blood sugar* is thus largely a matter of liver function, but it is influenced by the activity of the other glands, notably the pancreas. By virtue of certain pancreatic cell-groups, the islands of Langerhans, there is an important control and, like the governor of an engine, the control is variable to permit, in diseased states, the increased conversion of glycogen and the establishment of hyperglycemia, with resultant glucosuria. The *modus operandi* is masked and unknown in its details, as are so many of the functionings of the glands of the endocrine system.

A medullary center, in the floor of the fourth ventricle between the roots of origin of the pneumogastric and auditory nerves, plays a part as yet little understood, but causing glycosuria on being punctured. Other controlling factors are increased adrenal activity, which leads to hyperglycemia and glycosuria, and disturbed function of the posterior lobe of the pituitary and the thyroid gland, resulting under some conditions in glycosuria.

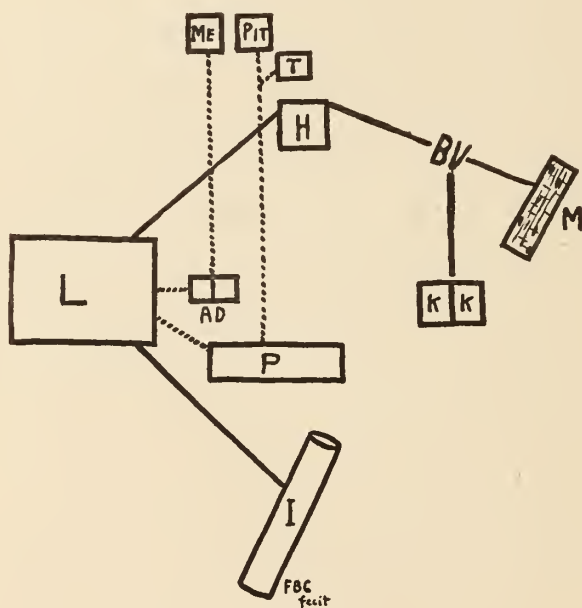


Diagram showing the course of carbohydrate from the intestinal tract (I) to the storage area in the liver (L), thence via the bloodstream to the heart (H) and on through the bloodvessels to the muscles (M). The inhibitory control of the pancreas (P) over glycogenolysis is subject to the influence of the thyroid (T) and the pituitary gland (Pit). The adrenal glands (Ad) and the medullary center (Me) with its relaxed nerves of the sympathetic system are accelerative of the special liver function. When the blood sugar rises above normal, the excess is excreted by the kidneys (KK).

The D:N ratio, a term often appearing in the literature of diabetes, is the constant portion of urinary sugar to nitrogen in the urine when, on a non-carbohydrate diet, or on a starvation regime, sugar appears in the urine. The usual ratio is 3.65 to 1.

This somewhat complex sugar-regulating machine unfortunately *breaks down at times and in one of the following ways*:

(1) Slow glycogen formation in the liver (glycogenesis or "fixation of the sugar") after the ingestion of large amounts of starches or sugar results in hyperglycemia.

(2) Glycogenolysis (the re-conversion of glycogen into dextrose) is speeded up in the liver as a result of decrease of the pancreatic control which is inhibitory.

(3) Glycolysis in the muscles is too rapid and more sugar is released than can be utilized. This is possibly better stated as delay in the consumption of glycogen in the tissues.

(4) The kidney becomes permeable to glucose as in phloridzin poisoning.

The results common to all these disturbances of function are hyperglycemia and glycosuria, except that the lowering of the renal threshold in the last instance does not carry with it a hyperglycemia.

How important is the stabilizing of carbohydrate balance is evident when the utilization of this group of foodstuffs is considered, for they contribute largely to the maintenance of body heat, the energy requisite for muscular work, the conservation of body protein through earlier oxidation, and the establishment of reserves of fat. With the carbohydrate metabolism disturbed or prevented, there develop clinical phenomena which can be visualized when the functions of the carbohydrate utilization are borne in mind.

Passing then to the clinical groupings of the glycosurias, we will take them up serially.

When the carbohydrate overload is too great, and the sugar absorbed from the intestinal tract is more than the liver can store as glycogen, the hyperglycemia relieves itself as glycosuria and the so-called *alimentary glycosuria* is identified. To fall within this group the patient must appear to be, for the time being, functionally inadequate in his sugar capacity without the tissue catabolism, ketonuria or clinical symptoms of a more severe disturbance. Hewlett states that always a blood sugar of .16% will produce glycosuria (Monographic Med., Vol. 1, 1916). Also that 150-200 gms. of sugar can be stored in the liver. The alimentary tolerance varies but has been put by Strauss at 100 gm. If the sugar is taken alone, the threshold is lower because of the rapidity of intestinal absorption. Curiously it is not lower in organic disease of the liver.

Case I: A. G. C.: Male, age 43, was put upon a low-protein diet in April, 1915, for a toxemic pharyngitis and Eustachian tube catarrh. Weighing 200 lbs. and a generous eater of bread, starchy vegetables, puddings and candy, by August he had achieved a glycosuria of 1.25%. A moderate restriction of total carbohydrate with absolute exclusion of sweets, rendered him sugar-free within four weeks and he remained so until April 25, 1918, when a routine urinalysis revealed a glycosuria of 2.2%. Direct questioning developed the fact that the night before collecting

the above mentioned specimen he had eaten very freely of candy, consuming more than half a pound. His sweets were again forbidden, but breadstuffs and one small potato were allowed per day and he has remained sugar-free since. In sum, this man has a restricted carbohydrate capacity without clinical symptoms. Specifically as to weight, it is fair to state that during the four weeks of his limited diet in 1915, his weight fell from 183 lbs. to 176 lbs. where it has remained ever since. The initial drop in weight from 200 lbs. to 183 lbs. between April and August, 1915 was due to the institution of regular exercise and the reduction of food intake. (December 1918—blood sugar .1170, no sugar in urine to date.)

In *pancreatic diabetes* (lean diabetes or Lancereaux' diabetes, so called when the emaciation is extreme), marked by continuous and severe glycosuria, hyperglycemia, metabolism speeded up 14-20% and an established inability on the part of the body to burn up dextrose, polyphagia, polydipsia due to the drainage of water out of the body, polyuria due to the excess of sugar acting as a diuretic, nycturia, decreased resistance to infection, as of boils and tuberculosis through the asthenia and impaired protective properties of the blood, arteriosclerosis, dry mouth, caries of the teeth, pruritus, bilateral neuralgia, bilateral sciatica, cramps in the legs, early cataract, balanitis and impotence, the disease has been placed upon a firm basis by the work of Opie in 1900 with regard to the part played by the islands of Langerhaus, and the experimental work of Allen in 1913-14. It is worth our time to briefly cite the protocols:

Leaving 1/4 of the gland—no glycosuria but decreased tolerance.

Leaving 1/6 of the gland—transient mild diabetes.

Leaving 1/8 of the gland—severe temporary diabetes.

Leaving 1/9 of the gland—severe diabetes, glycosuria on mixed diet.

Leaving 1/10 of the gland—very severe diabetes, glycosuria on meat diet.

The present belief is that the pancreas operates through a glycogenesis-controlling hormone.

A few cases of diabetes show no recognizable disease of the pancreas and so the ultimate cause may reside elsewhere. If a pancreas be transplanted successfully in a test animal, that animal will not develop glycosuria. Therapeutically there are no results from extracts of pancreas, given either by mouth, subcutaneous tissues or blood-stream. Heredity seems to play a part in 45% of the cases.

In pancreatic disease the renal threshold, the point at which sugar appears in the urine, is often lower in cases of short duration than in cases of long standing: in fact, in an old chronic case glycosuria may disappear and yet marked hyperglycemia persist.

The disease may be severe, mild or incipient. The groups are, arbitrarily, severe if sugar persists on sugar-free and low protein diet; mild if 100 gm. of white bread is tolerated; incipient if no glycosuria appears after 100 gm. of glucose.

The underlying factor in treatment is the decrease of consumption of sugar and starch, as carbohydrate tolerance is known

to increase with the establishment of a proper dietary regime. The Allen plan of control, known popularly as the starvation treatment, but for which Leyton (Brit. Med. Jour., 1917, i. 252) cleverly suggests the better name of "treatment of alimentary rest," is in brief starvation until the urine is sugar-free, when in turn are added to the diet, thrice-cooked green vegetables, proteins to balance the nutritional requirements, then fats, and finally carbohydrates.

Some carbohydrates are better borne than others; oatmeal, for instance, and this is rendered more useful if butter-fats or opium is used to delay intestinal absorption and thus promote fixation of the sugar as absorbed. Exercise decreases glycosuria, therefore should be increased with judgment in severe cases.

Diabetic coma is an acid intoxication with specific toxic effects of the ketone bodies, which include the acetone of Pettin, discovered in 1857, and the subsequently determined aceto-acetic acid (1881) and beta-oxybutyric acid (1883). These substances appear to be derived from fats which are poorly oxidized in the impaired carbohydrate metabolism. In this connection, reference must be made to the associated state of acidosis or depletion of body alkalinity, which precedes the diabetic coma and which is usually amenable to treatment by such doses of bicarbonate of soda as will restore normal alkalinity but not advance it beyond normal. Henderson (Science, 1917) has contributed largely to the establishment of this theory.

There are *many sub-forms of pancreatic diabetes*, some being arbitrary groups of little interest. Diabetes decipiens is characterized by no polyuria or polydipsia: hydruric diabetes defines a diabetes with especial polyuria with no increase of total urinary solids, while bronze diabetes refers to a type with pigmentation of the skin and secreting organs, and scleroris of the liver and pancreas. Obese diabetes is a perversion of the usual form of diabetes, yet differs from the lipogenic glycosuria which will be described later, in that other symptoms of diabetes are present.

I wish to refer to a group of cases occasionally seen in which the diabetes, apparently of true pancreatic type, subsides and is replaced shortly by the typical clinical picture of chronic granular kidney with high blood pressure, cardiac hypertrophy and impaired renal function. Van Noorden (New Aspects of Diabetes, 1912) speaks familiarly of them, yet with all of us they comprise a group that occasions much amazement and concern.

The following history is that of a *pancreatic diabetes of unusual type*.

Case II: H. G. C.: Male, age 49; in February, 1915, sugar was discovered in his urine to the amount of .85%. No especial attention was paid to it. In February 1916, 2.8% was reported: in August 1916, 6% and in November 3.4%. In April 1917, 3.4%, continuing thereafter at that point. His weight had dropped during this two years time from 214 to 159 lbs. In April he went to California where he was chronically constipated until May 18th when the bowels became diarrheal and he sought medical advice. On May 23rd jaundice appeared. On June 2nd, the day of his return, I saw him for the first time: definitely jaundiced, weight 148 lbs. Briefly, the jaundice increased, emaciation gradually developed, a palpable mass over the pancreas

was made out and on July 16th laparotomy revealed a neoplasm of the head of the pancreas. He was operated by a New York surgeon and died with peritonitis on July 19th.

To me it seems a reasonable assumption that the glycosuria in this case was of definite organic causation from the beginning, and that the jaundice and accompanying symptoms marked only the increase in the size of the neoplasm to such dimensions that pressure and obstructions resulted. We know that pancreatic new-growths are usually of slow development, and I adduce that fact in the consideration of this glycosuria. Of related etiology are the glycosurias accompanying chronic pancreatitis.

The glycosuria of hyperthyroidism must be considered an evidence of the interrelation of the thyroid and pancreatic secretions. It may be that the control is directed via the pancreas, which organ is depressed in its restraining influence on glycogenolysis to such an extent that sugar appears in the urine. Quite in accord with this theory is the observation that in myxedema large amount of sugar can be taken freely without glycosuria resulting.

Lipogenic glycosuria occurs in a stout individual who is habitually an overeater and who carries the sugar loss without any apparent effect on his health. This form is especially liable to re-classification, as loss of flesh may be instituted at any time, acting as an index of perverted metabolism. Many times this form arises as a "masked diabetes," glycosuria appearing as a late symptom in an otherwise well fat individual.

Renal glycosuria is best typified by the *glycosuria of pregnancy*, in which form the threshold is lowered by either changes in the renal cells or the chemical state in which the sugar is held in solution in the altered blood of pregnancy. Strangely, and this marks this variety, there is no hyperglycemia. The blood sugar is normal or sub-normal. Usually this glucosuria is very mild, but persistent, defying dietary control. There may or may not be concomitant renal disease.

Lactosuria is normal just before and after childbirth, but subsides when location is well established. If the baby is not nursed the lactose may rise to $\frac{1}{2}\%$ or higher. Plainly for this sugar the renal threshold is easily lowered.

Glycosurias of neurogenous origin are spoken of frequently as of adrenal causation. The grouping is based on Bernard's observations of polyuria and glycosuria of from 2 to 8% within one hour of puncture of the fourth ventricle, and is explained by reflex stimulation of the splanchnic-adrenal system with increased blood flow through the liver and consequent increased conversion of glycogen. These cases are observed after head injuries, cerebral hemorrhage, the development of intracranial tumors and emotional stress. The patients are nervous, excitable and tense. Rosenberger studied 196 cases of acromegalia, finding either spontaneous or alimentary glycosuria in 43%. The Great War has given us many cases of traumatic glycosuria which fall in the larger group. Rather (Bull. de. 1. Acad. de Med., 1917) cites a percentage of 4.17 in a total of 1412 wounded soldiers. These cases are as a rule acute and of short duration, as the pancreas tends to neutralize the adrenal stimulation of glycogenolysis. Caution in diagnosing this group is especially desirable.

Pentosuria, after free indulgence in cherries, apples and vegetables, gives slight reduction of the test solutions and may be mistaken for glucose in the urine. There are no symptoms.

Type diagnosis: There is admitted difficulty in the recognition of types of glycosuria and haste will often necessitate re-classification, for perhaps no factor in differentiation is so important as continued clinical observation. Skill and patience are of the utmost value in the study of all cases of sugar-sickness. Are we ever positive that the alimentary glycosuria will not eventuate in true pancreatic diabetes? Only if the sugar returns infrequently and other evidences of metabolic fault do not develop. A persistently recurring glycosuria after test administration of 100 gm. of glucose on several occasions would suggest a carbohydrate-utilization apparatus of impaired function, that might go on to true diabetes. A chronic glycosuria is generally of pancreatic origin.

The glycosuria of pregnancy differs in so many ways from the diabetides that true diabetes would probably never develop as an aftermath. I think general experience bears this out. When the cardinal symptoms of pancreatic diabetes are present, diagnosis is simple, but what of pancreatic diabetes in its incipient or latent stages? Time and continued clinical study eventually establish the diagnosis, but the very interesting work of Addis (Jour. Amer. Med. Ass., 1917) has placed in our hands a method of study so simple as to warrant its thorough trial.

Conclusions:

1. Chronic glycosuria is generally of pancreatic origin.
2. The amount of urinary sugar does not determine the type.
3. Continued observation and study are, in the end, the basis of establishment of the type of glycosuria.
4. The merging of one type into another more severe, is always a possibility.
5. The trend is towards true pancreatic diabetes.



THIRD RESUSCITATION COMMISSION.

(Under the Auspices of the Committee on Safety Rules and Accident Prevention of the National Electric Light Association.)

PROCEEDINGS AND RESOLUTIONS.

Edited by

Professors Howell, Stewart and Thomson.

THE Commission met in New York at the Rockefeller Institute Friday, May 17, 1918.

There were present at the meeting: Passed Assistant Surgeon E. F. DuBois, U. S. N. R. F. of the Bureau of Medicine and Surgery, Navy Department; Dr. D. L. Edsall, Professor of Medicine and Dean, Harvard Medical School; Mr. W. C. L. Eglin, Chairman of Committee on Safety Rules and Accident Prevention of the N. E. L. A.; Dr. Yandell Henderson, Professor of Physiology, Yale University and Consulting Physiologist of the Bureau of Mines; Dr. Wm. H. Howell, Professor of Physiology and assistant Director of the School of Hygiene and Public Health, John Hopkins University, Member of the National Academy of Sciences; Dr. Reid Hunt, Professor of Pharmacology, Harvard Medical School, SECRETARY of Commission; Prof. A. E. Kennelly, Professor of Electrical Engineering at Harvard University and the Massachusetts Institute of Technology; Dr. Charles A. Lauffer, Medical Director of the Westinghouse Electric Co., Pittsburgh, Pa.; Dr. S. J. Meltzer, Rockefeller Institute, CHAIRMAN of Commission, Member of the National Academy of Sciences; Dr. Joseph Schereschewsky, Assistant Surgeon General, U. S. Public Health Service; Dr. G. N. Stewart, Professor of Experimental Medicine, Western Reserve University, Cleveland; Prof. Elihu Thomson, General Electric Co., West Lynn, Mass., Member of the National Academy of Sciences; Lieut. Colonel Edward B. Vedder of the Army Medical School; Major Frank G. Young of the Ordnance Division of the War Department.

A telegram was received from Surgeon General Gorgas that Dr. Charles H. Frazier, Professor of Surgery, University of Pennsylvania is to represent his office. (In a subsequent communication Major Frazier accepted his appointment). Conferees: Mr. P. H. Bartlett, Philadelphia Electric Company; Mr. Willis MacLachlan, Electrical Employers Association, Toronto, Canada; Mr. C. B. Scott, Chairman of the Sub-Committee on Accident Prevention N. E. L. A.; Dr. F. E. Schubmelh, General Electric Co., West Lynn, Mass.

The object of the Commission the Chairman stated, is to consider efficient methods of artificial respiration in emergency cases, *as they are met with in peace as well as in war*. For more than a century, England has had several life-saving societies, and many special commissions have been appointed to investigate the methods employed in resuscitation. In this country, about six years ago, a Commission on Resuscitation from Electric Shock was created for the first time, by the initiative of the National Electric Light Asso-

* Reprinted by request.

ciation. It is now generally recognized that efficient artificial respiration is, for such conditions, the best and practically the only means available for resuscitation. It requires but little consideration to realize that the need for an efficient means of artificial respiration is very wide-spread.* The Committee on Safety Rules and Accident Prevention of the N. E. L. A., of which Mr. Eglin is the Chairman, agreed that THE THIRD RESUSCITATION COMMISSION SHOULD CONSIDER ITS PROBLEMS FROM A GENERAL POINT OF VIEW.

Mechanical Methods. Dr. Meltzer demonstrated in the laboratory for physiology and pharmacology, the efficiency of the method of pharyngeal insufflation in an etherized dog after complete removal of the anterior wall of the thorax, in which the lungs and heart were exposed to full view (18 minutes).

Dr. Rossiter of the Carnegie Steel Company demonstrated the latest device of the Pulmotor Company, which is not identical with the original Pulmotor. He showed also the original Pulmotor. He stated that he had resuscitated eight gas cases, in which the respiration had stopped. This was done by the original Pulmotor in which he had more confidence (30 minutes).

Dr. James M. Booher, Medical Director of the Life Saving Devices Co., demonstrated the Lungmotor. He showed a number of blood pressure tracings, taken from animals which had received artificial respiration by means of this apparatus. In reply to a question, Dr. B. stated that in these experiments the Lungmotor was connected with the animal by means of a tracheal cannula. (In human cases the Lungmotor is applied by means of a face mask). Dr. Booher left with the Commission histories of a number of cases in which the lungmotor had been used (30 minutes). (The Commission found no time to examine these written histories, but Dr. Booher mentioned verbally especially two cases. One of these cases was subsequently investigated by the Chairman. The life of a poliomyelitis patient with complete paralysis of the respiration was maintained for thirty-six hours by means of a Lungmotor. The reporting physician is of very good standing).

In introducing Mr. Foregger, the Chairman explained that the physician who was most competent to present the details of the apparatus of the Foregger Company is now in France. Mr. Foregger was allowed fifteen minutes. The apparatus consists in modifications of the insufflation apparatus of Meltzer. Among other changes, the apparatus carried an oxygen generator tank. In reply to a question, Mr. Foregger stated that the oxygen thus generated may last eight or ten minutes.

Manual Methods. Mr. Eglin read a letter from Mr. M. W. Alexander of the General Electric Co., stating that he hoped the "Commission would be very definite in recommending the prone-pressure method, as experience has proved its value."

Mr. C. B. Scott stated that the Accident Prevention Committee

*For instance, in injuries to the head which stop respiration, injuries to the chest (especially double pneumothorax) in laparotomies during which the respiration ceases occasionally, in cases of shock which occur in peace and more so in the present war, in poliomyelitis with stoppage of respiration, in post-diphtheretic paralysis, in poisoning by opiates, by volatile gases (ether, chloroform, etc.) by mine and fuel gases, poisoning by magnesium salts, in electric shock and in drowning.

of the N. E. L. A. had reached the point in its investigation where it felt that the prone-pressure method was best to recommend, bearing in mind that machines are not always available in emergencies. His own company had had nine successful cases of resuscitation by the prone method and three unsuccessful cases in which mechanical means were used.

Dr. Schubmehl stated that the prone-pressure method has been most successfully applied by their two hundred and twenty-five First-Aid Men.

Mr. Maclachlan stated that he had the duty of training possibly three thousand men in the prone method. Their system required the men to practice this method at least once a month. The men are instructed not to desist in less than three and a half hours, and that not till then should they listen to advice from a physician who might tell the operator that the patient was dead.

The Secretary read the following parts of a letter from Professor Schäfer of Edinburgh to the Chairman: "The prone method has been adopted *exclusively* for about twelve years by the Royal Life Saving Society, the only important organization in the British Empire whose object is the resuscitation of the apparently drowned. It has also been adopted for several years by the London and other Police Force, by the Board of Trade, by the Army and the Navy." "The most important thing is in cases of drowning to have something ready which any man can use; which will effect respiratory exchange—whether exactly as much as normal, matters very little."

RESOLUTIONS ADOPTED BY THE COMMISSION

In the discussion following the presentation of methods and evidence to the Commission the following important facts were emphasized:

1. That in most accident cases no resuscitation apparatus is at hand for immediate use.
2. That reliance upon the use of special apparatus diminishes greatly the tendency to train persons in the manual methods and discourages the prompt and persevering use of such methods.
3. That police officers or physicians often interfere with the proper execution of manual methods, in that they direct that the patient be removed in an ambulance to some hospital, thus interrupting the continuance of artificial respiration.
4. That in many hospitals the members of the staff are not all acquainted with the methods of artificial respiration.
5. That in medical schools instruction is not properly provided for students in the manual methods of artificial respiration.

In view of these facts the following resolutions were adopted by the Commission:

1. The prone-pressure or Schäffer method of resuscitation is preferable to any of the other manual methods.
2. Medical Schools, Hospitals, Fire and Police Departments, the Army and Navy, First Aid Associations, and Industrial establishments in general, should be urged to give instruction in the use of the prone-pressure method of resuscitation.
3. Individuals who, from accident or any other cause, are in

need of artificial respiration, should be given manual treatment by the prone-pressure method immediately on the spot where they are found. It is all important that this aid be rendered at once. The delay incident to removal to a hospital or elsewhere may be fatal, and is justifiable only where there is no one at hand competent to give artificial respiration. If complications exist or arise, which require hospital treatment, artificial respiration should be maintained in transit, and after arrival at the hospital, until spontaneous respirations begin.

4. Persons receiving artificial respiration should, as much as possible, be kept warm and the artificial respiration should be maintained till spontaneous breathing has been permanently restored, or as long as signs of life are present. Even in cases where there is no sign of returning animation, artificial respiration should be kept up for an hour or more.

5. A brief return of spontaneous respiration is not a certain indication for terminating the treatment. Not infrequently the patient after a temporary recovery of respiration stops breathing again. The patient must be watched and if normal breathing stops, the artificial respiration should be resumed at once.

6. Artificial respiration is required only when natural respiration has ceased. In cases of simple unconsciousness from any cause in which natural respiration continues, artificial respiration should not be employed without medical advice.

7. The Commission recommends that in cases of gas asphyxiation, artificial respiration, whether given by a manual method or by special apparatus, should be combined when possible with the inhalation of oxygen from properly constructed apparatus.

8. With regard to the employment of mechanical devices for artificial respiration the Commission feels that it ought not at present to take a definite stand either for or against any particular form of apparatus. However, the Commission recommends, that the use and installation of apparatus should be confined, for the present, to properly equipped institutions under medical direction. The Commission recognizes the great need of simple devices capable of performing artificial respiration reliably and efficiently. It therefore recommends a careful study of the problem, directed toward *the development of a reliable method appropriate for general adoption.** Such studies can best be carried on in properly equipped hospitals and laboratories which offer opportunities and facilities for critical observation and experimentation.

In view of the importance which the knowledge of proper methods of resuscitation possesses for public health and safety and considering the fact that many practitioners, members of hospital staffs and graduates of medicine are not thoroughly familiar with the methods of resuscitation, especially that of the prone-pressure method, the Commission recommends:

(a) THAT MEDICAL JOURNALS (and other scientific and practical journals which are interested in the problem of resuscitation) BE ASKED TO PUBLISH THE RESOLUTIONS ADOPTED BY THE COMMISSION.

(b) THAT A COPY OF THESE RESOLUTIONS BE SENT TO THE MEDICAL COLLEGES WITH A REQUEST

* See appendix.

THAT PROPER INSTRUCTION IN THIS SUBJECT shall be arranged for in the *College Schedules*.

(c) That these resolutions be sent to as many hospitals as possible, with the recommendations that members of the house staff shall familiarize themselves with the methods of resuscitation.

(d) In order that the resolutions of the Commission may be brought to the attention of interested circles (fire and police department, industrial plants, etc.) it was agreed that they be communicated to the Associated Press (by the National Electric Light Association).

It was voted that the Third Resuscitation Commission should be properly organized and continue its existence, ready to respond when requirements arise. The following officers were elected:

President—Dr. S. J. Meltzer.

Vice-President—Dr. Yandell Henderson.

Secretary—Dr. Reid Hunt.

Treasurer—Mr. W. C. L. Eglin.

It was voted to appoint a Committee for the collection of verifiable data relating to resuscitation. The President appointed to the Committee:

Dr. D. Edsall—Chairman.

Dr. Reid Hunt—Secretary.

Prof. Elihu Thomson, and the President Ex-Officio.

The Commission consists of fifteen members. Fourteen approved the foregoing report without qualification. The fifteenth member wishes to qualify his vote by the following

STATEMENT

Dr. Yandell Henderson qualifies his support of the resolutions as follows:

While I concur in a considerable part of the report of the Resuscitation Commission I dissent from the statement in Resolution 8 recognizing "the great need of simple devices capable of performing artificial respiration reliably and efficiently."

Devices which are excellent from the mechanical standpoint are now available and widely sold; but the evidence regarding them indicates clearly, I believe, that even if these devices were on the spot where several gassings or electrocutions occurred, and if all the victims were treated with them, except one who was given manual (prone pressure) treatment, this one would have much the best chance of recovery. In actual practice the apparatus is seldom right on the spot adjusted and ready. Critical time is lost, and thus in the above suppositious cases, as they actually occur, the only victim with any considerable chance of resuscitation (aside from those who recover spontaneously and are credited to the apparatus) is the one treated manually.

Even more important is the fact, demonstrated now by universal experience, that when apparatus is known to be obtainable, it is sent for and the manual method neglected. Thus today the apparatus in public use is on the whole contributing very materially to decrease the saving of life.

IRITIS.

James H. Andrew, M.D.

Brooklyn, New York.

A THOROUGHLY clear conception of the inflammatory changes which take place in the iris can be obtained only by remembering the anatomical structure of the organ, and its position in reference to other highly specialized parts of the eye.

The iris is a circular membrane suspended at its periphery from the ciliary body, hanging freely in front of the lens with which it is in contact at its pupillary border when the pupil is in its normal position, but with which it is not in contact when the pupil is dilated. The fact of contact between the iris and lens when the pupil is contracted and the absence of contact when the pupil is dilated is the anatomical and mechanical reason for the use of atropine in plastic inflammations of this membrane.

Suspended in front of the lens and behind the cornea, the iris curtains the aqueous chamber into two parts known as the anterior and posterior chambers. The anterior chamber is in front of the iris and behind the cornea, while the posterior is behind the iris and in front of the lens. Hanging freely, the iris is bathed on both sides by the aqueous which is a lymph fluid, a fact which should be borne in mind in toxemic conditions, for it is not improbable that toxins which circulate in the blood find their way into the aqueous and so come into direct contact with the iris.

The junction of the iris with the ligamentum pectinatum, the cornea and sclera forms an angle known as the iris angle, or the angle of the anterior chamber. This angle is of importance because upon its preservation depends the normal circulation of lymph which nourishes the eye, and the proper drainage of the aqueous chamber. An exudate at this angle, or an iris and ciliary body sufficiently swollen to block this angle, will prevent the outflow of aqueous and cause a secondary glaucoma.

The pathology of iritis is the pathology of inflammation elsewhere. The vessels enlarge, an exudate forms which permeates the structure of the iris, glues the posterior surface to the anterior capsule of the lens, and often escapes through the pupils into the anterior chamber. This exudation causes both the swelling of the iris and the change of color so characteristic in this disease. The exudate in the anterior chamber is the cause of the peculiar turbid appearance of the aqueous and of the deposits which are often seen on the posterior surface of the cornea. These deposits are sometimes carried by gravity to the bottom of the chamber giving there a collection of pus which is called hypopyon. When the exudate glues the iris to the lens it may occur in isolated spots, or the whole pupillary border of the iris may become adherent (seclusion of the pupil). Occasionally in addition to the adhesion of the whole pupillary border we get a false membrane across the pupil (occlusion of the pupil) which is destruc-

tive to vision, and which eventually, because of its interference with drainage, causes glaucoma.

Etiology. A primary idiopathic iritis probably seldom if ever occurs. As our methods of diagnosis improve the so-called idiopathic iritis is becoming as rare as the Dodo. A safe rule to apply is that an inflammation of the iris always means a focus of infection, a diseased condition, or a toxemia elsewhere.

Syphilis is the underlying cause in nearly half of the cases. In syphilitic iritis the disease begins in one eye, but in a fairly large percentage of the cases extends ultimately to the other eye. It is in the secondary stage of the disease that the iris becomes involved, though a gummatous form does develop in the tertiary stage, and associated with interstitial keratitis, iritis is not uncommon in hereditary syphilis. The syphilic form of the disease is plastic, and may be of a mild type, or it may be severe involving the ciliary body. Hypopyon sometimes develops. In the severe type of irido-cyclitis pupillary membranes occur, leading eventually to glaucoma, and exudates occur in the vitreous which by their contraction and organization, lead to detachment of the retina and atrophy of the eye ball.

No doubt exists that gonorrhoea is a causative factor in some of our iritis cases. The iris become involved through metastasis, and a not unusual syndrome consists of urethritis, arthritis and iritis. As a rule the history is one of repeated attacks of gonorrhoea. Gonococci have been isolated from the aqueous, a proceeding requiring considerable bacteriological skill. Cases of recurrent iritis in young adults, in whom syphilis and tuberculosis can be excluded, should be investigated for the Neisserian infection by the usual methods, including a complement fixation. Gonorrhoeal iritis may be mild with but little exudate, but is rather more apt to be of the severe exudative type of irido-cyclitis.

Rheumatism. We hesitate today in giving rheumatism as a cause of anything, and iritis is no exception. Indeed some modern writers class these cases as "toxemic." In acute articular rheumatism iritis is not so very common, but in the subacute and chronic forms of myositis and arthritis it is common, and it is in just these cases that the modern clinician looks for foci of infection in the teeth, the nasal sinuses, the tonsils, the prostate and the gall bladder. Irons and Brown in 1916 examining cases of iritis by every known method including chemical, serological, bacteriological and X-ray found in one hundred cases that the causes were as follows: Syphilis 23, Gonorrhoea 9, Tuberculosis 8, Dental infection 18, Tonsils 16, Genito urinary 3, other suppurations 2, No cause 1, Combined infections 17.

Tuberculosis as a cause of iritis occurs in young adults and shows yellowish gray slow growing nodules, sometimes covered with exudate, involving the iris and ciliary body. Another form is in no way distinguishable from ordinary iritis.

—*Subjective Symptoms.* The advent of iritis is heralded by aching and pain in the eye, or over the brow. The pain is particularly severe at night and the vision soon becomes impaired. The pain is partly due to the pressure on the delicate nerves, as the iris becomes swollen, and partly to the irritation produced by toxins. The impaired vision is due to turbidity of the aqueous,

deposits on the cornea, and in severe case exudates in the pupil and in the vitreous.

Objective Symptoms. Owing to the engorgement of the anterior ciliary vessels there is a zone of circumcorneal redness, though secondarily the posterior conjunctival vessels may become inflamed. This circumcorneal engorgement is not pathognomonic as it is seen in glaucoma as well.

The appearance of the iris is characteristic, lusterless, with the folds and crypts ironed out by the swelling, and the color differing from that of the fellow eye. These changes are due to exudate in the substance of the iris and to turbidity of the aqueous. The pupil responds slowly or not at all to light and is contracted. It may be irregular in shape. Swelling and exudation cause its contraction, and adhesions its irregularity.

Differential Diagnosis. The two diseases with which iritis is most likely to be confounded, are acute conjunctivitis and acute glaucoma. The character and location of the conjunctival injection is a guide in making the diagnosis, for in both iritis and glaucoma the vessels involved comprise the anterior ciliary twigs, fine hair like vessels in a zone immediately surrounding the cornea, while in conjunctivitis the inflamed vessels belong to the posterior conjunctival group, are larger and coarser than the anterior ciliary, and are situated farther from the cornea. A mucous or muco-purulent discharge is the rule in conjunctivitis but not in the other diseases. The pupil is normal in conjunctivitis, dilated in glaucoma and as a rule contracted in iritis. The anterior chamber is normal in conjunctivitis, normal or deep in iritis, but shallow in glaucoma. The cornea is transparent in conjunctivitis, steamy and insensitive in glaucoma, while in iritis it is sensitive and clear, except in those cases which show deposits on the posterior surface. Tension is normal in conjunctivitis, elevated in glaucoma, normal in iritis for the most part, sometimes slightly elevated.

Treatment. If the treatment of iritis could be confined to one drug, that drug would undoubtedly be atropia. Atropine meets most of the local requirements. It dilates the pupil narrowing the diameter of the iris, squeezing the engorged vessels and reducing the inflammation. It paralyzes the accommodation thus putting the eye at rest, and by drawing the pupillary margin away from the anterior surface of the lens prevents the formation of adhesions or breaks up those which are forming. It is of no value in occluded pupils. Sometimes a granule of powdered atropine placed in the conjunctival sac accomplishes the purpose better than the solution. Cocaine added to the atropine will occasionally increase the effect. Atropia must be instilled sufficiently often to keep the pupil dilated, and the tension of the eye should be constantly watched during its use. Dionin used with the atropine relieves pain in some instances, and by its lymphagogue action assists in removing the products of inflammation.

An old and honorable way to deplete the engorged vessels is by blood letting at the temple, either by the use of leeches, or by the use of an artificial leech. In this connection it may be well to add that in the absence of leeches or the usual artificial leech, a good substitute may be improvised by scarifying the

temple and applying an ordinary breast pump. It is sometimes a matter of surprise to see how quickly atropine will produce its maximum effect after a blood letting.

The systematic treatment of iritis is the treatment of its cause. In syphilis our sheet anchors are salvarsan, mercury and after the inflammation has begun to subside the iodides.

When associated with myositis and arthritis the salicylates and aspirin are indicated, even though the gonococcus is the causative factor. If a focus of infection can be found in the teeth, the tonsils, the nasal sinuses, the prostate or any other place it must be gotten rid of at once. In many cases, in addition to removing the focus, the condition will be helped by the administration of an autogenous vaccine. The gonorrhoeal form is also frequently helped by a gonorrhoeal vaccine.

Tuberculosis is tuberculosis whether found in the lungs or the iris, and the general rules for its management are similar. The administration of tuberculin is sometimes of considerable benefit. Some surgeons advocate the use of a 3% guaiacol ointment as an inunction, or the subconjunctival injection of a one or two per cent solution of guaiacol.

To be successful in the treatment of iritis the surgeon must ever bear in mind its pathology, and he must be prepared to discover the etiology of each case, by using all those aids to modern medicine, the X-ray, and particularly the pathological laboratory for his bacteriological and serological tests and for the preparation of his vaccines. With all the aid which modern medicine offers us we find it necessary only too often in the treatment of this most insidious disease, to summon to our aid our last reserves of common and diagnostic sense and therapeutic acumen.



EDITORIAL



HEALTH AND MORALS.

TO any one whose thoughts pass beyond the moment, the outburst of more than carnival license that marked the behavior of the throngs who turned the announcement that the Armistice had been signed into a licentious orgy is sufficient to carry the conviction that the lessons of the War are all too poorly learned. Soldiers and sailors everywhere were urged to drink and the shameless conduct of women of otherwise respectable appearance was not only morally revolting, but extremely depressing to anyone who realizes the efforts that have been made on the part of the Army and Navy authorities and the War Camp Community Welfare Association to impose some check upon the venereal peril. It is only too evident that the gravity of this peril has not yet reached a sufficient appreciation by the general public to become a real moral force. It has been argued that these excesses were confined to that usual percentage of the worthless that afflicts every community and that the size of the city accounts for the size of the drunken and licentious crowd. It has also been argued that the intoxicated soldiers and sailors were only those who were always to be found as the normal percentage of the bad among the good. Making due allowance for this argument, it must be pointed out with all possible emphasis that the spread of venereal disease depends upon precisely this factor among the population and that as they are not an isolated or segregated lot, but mingle freely with the rest of us, they are a source of peril to the good. The late Dr. Gaillard Thomas estimated that 60% of all operations upon women were done for the relief of conditions that had resulted from venereal causes and it cannot be too strongly put that the vast majority of those women have been innocent sufferers. The proportion will probably increase. The number of insane dependents of the state is constantly increasing and will continue to increase until syphilitic infections can be stamped out. When it is considered that no living human being came into this world of his own volition, the burden that rests upon parents to see that their offspring shall at least have a clean start in life assumes an appalling significance. It is the duty of every man and every woman to hold before them the clear distinctions that this problem offers. These are two: The moral and the sanitary. The restraints of the moral law are inadequate until age and its resultant experience has built up character to the point where reason and right prevail over the promptings of the flesh. As

the average human being remains intensely human until he is snuffed out, it is obvious that the moral element can be effective only in a limited degree. The sanitary side, then, is clearly the point of attack. Little by little this point has gained ground in spite of the opposition of prudes who abound in both sexes and of impractical moralists who make an academic claim that sanitary prevention is merely safeguarding lewdness. If these people would apply the lesson in a concrete form they would readily acknowledge that it is better to disregard the moral quibble and to have a clean, happy and healthy daughter and wife.

There are inherent difficulties in the treatment of this problem that cannot be minimized, but they are not insurmountable. The first thing is to bring home to the entire people the necessity for action. The next thing to mold public opinion so as to make it effective. The old fable of sowing wild oats must be gotten rid of. The lesson that sexual continence has no bearing whatever upon health must be driven home, and alcohol as a beverage must be done away with. It was no haphazard poetical dream of the Greeks and Romans that pictured Venus, Bacchus, Libidina and Priapus in the same group. Spiritualize them as you will they form a family whose offspring have required all the skill of Aesculapius to keep in restraint. This subject must be constantly agitated and steadily popularized and it is no small encouragement to find so conservative a journal as the *New York Times* dealing with it editorially. One cannot but regret that the Mayor of New York City, by his veto of the so-called Curfew Ordinance, has helped to hinder the onward march of moral progress.

H. G. W.

FAVORITISM RUN WILD.

THE Army and Navy Register calls pointed attention to a Biff which proposes to make permanent the Brigadier General Commission for a member of the Medical Corps, whose actual status is that of a Junior Member of the Corps. Colonel Noble, one beneficiary under the Bill, has already been jumped nearly one hundred numbers to the prejudice of many excellent men who are his seniors in point of service. His rapid rise has been apparently effected, not so much for conspicuous qualifications, as for reasons personal to the former Surgeon General of the Army. No fault can be found with a perfectly natural desire for advancement, nor does any criticism attach to Col. Noble, but the principle of such conspicuous preferment at the expense of a hundred senior officers is distinctly bad. In any technical organization where duties and emoluments are fixed by law, it is the hope of promotion that offers the keenest incentive to do good work and so soon as the element of favoritism is introduced the pride in ones work is destroyed and political wire-pulling substituted. In all Government Departments the instability of our political system is detrimental to the best type of departmental work, a factor which was painfully evident at the outbreak of the war when important bureaus failed in their duties because they were presided over

by inefficient henchmen. Unless it can be clearly shown that the personal qualifications, distinguished services and above all the best interest of the Medical Corps demand this exceptional action for the benefit of Col. Noble his nomination should be withdrawn.

Incidentally some other nominations made by the retired Surgeon General might well be investigated as throwing light on the reason for the Bill under question. There are too many good men in the Army Medical Service to whom injustice would be done by pernicious legislation to permit it to go through without active protest.

H. G. W.

DOCTORS IN INDUSTRIAL PRACTICE.

THE Department of Labor and Industry of Pennsylvania is planning a conference early in 1919 for physicians and surgeons engaged in industrial practice. Dr. Francis D. Patterson, Chief of the Division of Industrial Hygiene and Engineering, calls attention to the semiannual conferences which have been held by this department for physicians and surgeons engaged in industrial practice that have now been held for several years. The desire of the department is to arouse a countrywide interest in these conferences which have proven of great value to those who have already participated and to attract to them a very considerable number of men in other states who have not yet been drawn into touch, in order that they may be invited to attend the next conference.

The subjects taken up for discussion deal with all of the varying phases of the specialized work incident to industrial practice and will unquestionably repay abundantly for the time and money expended upon them. Dr. Patterson is anxious to obtain the names and addresses of every one doing work of this class at the earliest opportunity. He may be addressed in care of the Department at Harrisburg, Pa.

H. G. W.



Society Transactions



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, December 5th, 1918, at 8.30 p.m. The President, Joseph P. Murphy, M. D., in the Chair.

Program

CASE REPORTS:

1. Hour glass contraction of stomach, due to ulcer. Partial gastrectomy.
2. Obstipation. Anastomosis of ileum and sigmoid.
3. Dilatation of pyloric half of stomach. Gastroplification.

John L. Bauer, M.D.

Case 1 discussed by Drs. William Linder, John M. Scannell, Frank D. Jennings, Joseph P. Murphy, and John L. Bauer.

Case 2 discussed by Drs. Earl H. Mayne, Henry F. Graham, and John L. Bauer.

Case 3 discussed by Drs. Frank D. Jennings, Joseph P. Murphy, and John L. Bauer.

4. Fracture of pelvis (six cases). X-rays.

Russell M. Rome, M.D.

Discussed by Drs. Frank D. Jennings, James C. Kennedy, William Linder, James M. Downey, Henry F. Graham, Joseph P. Murphy, and Russell M. Rome.

PAPER:

Military surgery in the Middle Ages.

Lewis S. Pilcher, M.D.

Discussed by Drs. William Linder, and Henry F. Graham.

JOSEPH P. MURPHY, M.D., President.

FRANK D. JENNINGS, M.D., Secretary.

Hour Glass Contraction of Stomach, Due to Ulcer. Partial Gastrectomy.

John L. Bauer, M.D.

The first case report is that of Mrs. H., 29 years old, American, married, no children, a woman of 116 pounds weight. Menstrual history, negative. Family history, negative. Typhoid fever at 14 years. Otherwise, well until about November or December, 1917, when she probably suffered from a gastric ulcer. Since then, constant belching of gas; pain constantly before and after eating, but worse immediately after eating. Always distended in the upper abdomen. Never vomited. More distress while in the erect posture than lying down.

The history, then is one of dilated stomach supervening upon a chronic ulcer. Gradual loss of weight about 19-20 pounds in all. Afraid to eat.

The patient was first seen by me on Oct. 3rd, 1918, when I found a dilated stomach, but a greater degree of distention to the right and to the left. The patient was thin enough to make a good subject for such an examination. Other examinations were not made. The patient was suffering from severe pain and was obliged to lie down in my office. A diagnosis of ulcer of the stomach was made, and an hour glass contraction was considered.

After rest in bed and stomach lavage for three days, with sterile water for diet, on Oct. 28th, 1918, an operation was performed and an hour glass stomach with contraction of an inch in length, connecting two equal sized cavities, was found, the greater curvature being drawn up nearly to the lesser, leaving an opening about a finger's breadth. A resection of the middle third of the stomach with end-to-end suturing of the remaining portion, was done. No gastroenterostomy. Closure without drainage. Moynihan post-operative treatment. Nutrient enemata every six to eight hours and twenty-four hours after operation water in increasing amounts and frequency. Later, other fluids, but no broth.

Recovery with primary union, uncomplicated. A marked contrast—before operation, constant belching of gas and distress. Now, none. The patient is comfortable and has gained strength rapidly. She eats enough, but is on a guarded diet. No meats and no meat-soups allowed.

Obstipation. Anastomosis of Ileum and Sigmoid.

John L. Bauer, M.D.

Case report No. 2: Miss D., 27 years of age, American.

Family History: Negative, except for one brother who has suffered from incipient pulmonary tuberculosis.

Personal History: Negative, except for constipation from earliest time that she can remember. Continually becoming worse.

On April 6th, 1915, the appendix was removed. Adhesions and membranes were found everywhere. These were freely dissected off and tied and sutured over. The ascending colon was markedly distended; nearly parietic.

After the operation the patient enjoyed no improvement. The constipation finally became so obstinate that drugs and enemata practically failed to give any relief. After a siege of repeated enemas for one or two days the bowels would move, but the patient was exhausted.

On April 16th, 1917, through a lower median incision, a careful survey of the contents of the abdomen was made and an anastomosis between the ileum and the sigmoid was decided upon and done, leaving the entire large bowel in place. The abdomen was closed without drainage. Primary union occurred. Comfortable convalescence with small movements of bowels on the second and third day after operation and good results with low enema on the fourth day. The patient reports daily movements and no use of drugs. Naturally, gain in weight, appetite and general health since.

Dilatation of Pyloric Half of Stomach. Gastroplication.

John L. Bauer, M.D.

Case report No. 3: Miss Y., 43 years old, married. For the last few years she has been separated from her husband and has resumed her maiden name. No children.

In March, 1917, she was referred to me. Patient is inclined to be stout, despite the fact that she has lost considerable weight. She has been very nervous for the past year and over; has been unable to work because of constant and severe headache. Always under treatment. Constipated. Complaints of indefinite stomach symptoms. Otherwise, the history was negative.

An abdominal examination disclosed what seemed to be an enlarged gall-bladder, although there was some doubt about the diagnosis. A distention or dilatation or pouch-like cystic condition in the region of the gall-bladder, in the right upper part of the abdomen, could be palpated.

On April 10th, 1917, this patient was operated. She was placed in the gall-bladder position, the stomach having been previously lavaged. The

gall-bladder was found to be perfectly normal. The pyloric half of the stomach was dilated to nearly twice the size of the other half, which was apparently normal in every respect. There were neither cicatrices nor induration found. There were no adhesions. There was nothing else within the abdomen that was abnormal. A plication of this dilation by large Lambert sutures of silk was easily accomplished.

The post-operative course was comfortable, but wound infection, delaying healing for four weeks, occurred. There was a three-inch superficial layer of fat.

About three months after the operation the patient began to work. The toxic symptoms had disappeared. Up to the present her health is normal.

Hour Glass Contraction of Stomach, Due to Ulcer. Partial Gastrectomy.

John L. Bauer, M.D.

DR. WILLIAM LINDER:

"I would like to report a case which I had two years ago in a woman 55 years, who had lost steadily in weight, with a history of long-continued gastric symptoms. The patient in this case was the mother of a physician who was very slow in bringing his mother to be operated upon. She finally suffered so much and was unable to take any food at all that he finally brought the case to me. Upon opening this patient up it was found that she had an hour glass contraction of the stomach and the contraction occupied fully the entire middle third of the stomach. The adhesions were so dense above the fundus and the pylorus, that a sleeve resection, such as the doctor mentioned, would have been impossible in this particular case. The adhesions to the pancreas were inseparable. I did an anterior gastrogastrostomy. At the same time, the posterior wall was very much contracted and there was a proportionately larger anterior wall of the stomach. The patient made an uneventful recovery. She has now gained 15 pounds in weight and has enjoyed very good health.

"I mention this case only for the reason that when we come in contact with such a case, with such adhesions, that gastrogastrostomy can be done without resection, the same as you would do a lateral anastomosis."

Obstipation. Anastomosis of Ileum and Sigmoid.

John L. Bauer, M.D.

DR. EARL H. MAYNE:

"I would like to ask the doctor if there was any evidence of toxemia from the stasis or material remaining in the colon which was left. You left the entire colon, as I understand it.

DR. JOHN L. BAUER:

"Yes, the colon was left. There was no evidence of toxemia whatever."

DR. EARL H. MAYNE:

"It is very interesting, because Drs. Lynch and Draper have been carrying out a number of experiments in these cases of marked ptosis with stasis and obstipation, by an operation which they call, 'The Reconstruction of the Colon,' by taking out the cecum and the ascending and transverse colon and making a connection of the ileum with the sigmoid. They have reported, I think, 35 cases with very excellent results, but, of course, there is a much greater mortality in those cases than there is where the ileum is simply put into the sigmoid without resection of the remaining colon. It is interesting to learn in those cases where there be any marked toxemia from the material left in the colon."

DR. HENRY F. GRAHAM:

"I have seen several of those cases where the colon has been taken

out. If Dr. Bauer can do this operation and have the patient feel better after it, it is a great deal better than to take the colon out, as in my experience the cases where the colon is taken out are worse off after it is taken out than they were before. I saw one of these cases done by Kellogg at the Battle Creek Sanitarium. I also saw Bloodgood do a case which took him two and a half hours to do and he said he cut his operating time down one hour.

"Dr. Bauer is to be congratulated on having the sense to leave the colon in.

"My understanding of that operation of Lynch and Draper's is that they do not take the entire colon out, but that they take out the cecum, the ascending colon and the hepatic flexure and anastomose the ileum to the first portion of the transverse colon, and I have done that in one case. The patient did pretty well for a month or two, I think, and then she began to get symptoms again after being home for a while and came back. We had some x-rays taken, and her sigmoid was about as big as a foot-ball. Dr. Spence took that out. She did well for a few weeks, went home and came back again. I finally came to the conclusion that she could balloon her intestine up faster than we could keep up with her.

"I think it is largely a problem of nervous changes and muscular changes in the intestines. You can never get ahead of some of these cases."

Hour Glass Contraction of Stomach, Due to Ulcer. Partial Gastrectomy.

John L. Bauer, M.D.

DR. JOHN L. BAUER:

"I was somewhat influenced in doing that operation by some work that Dr. Finney had done, and I was very much influenced by a case he presented at his clinic, in which he said, 'Gentlemen, I have completely removed the colon from this patient and I wish I could put it back.'"

"Since the operation no x-ray pictures have been taken. Some were taken before. From the fact that there is less distention of the colon since this operation I am inclined to think that possibly the colon is also operative. I feel certain, though I am not absolutely sure, that this anastomosis is operative."

DR. FRANK D. JENNINGS:

"What is the character of the bowel movements—loose?"

DR. JOHN L. BAUER:

"It is not a fluid bowel movement. It is semi-solid. It is hardly formed."

DR. FRANK D. JENNINGS:

"Was that just a dilatation of the pyloric antrum?"

DR. JOHN L. BAUER:

"In answer to Dr. Jennings' question I would say that it was a dilatation of the pyloric half of the stomach.

"I would like to know if any one can tell me why there should be a dilatation of the pyloric half of the stomach, with no adhesions, no history of ulcer and no complication of any kind. We simply found the results of the dilatation, but do not know the cause of it."

DR. FRANK D. JENNINGS:

"Was it atonic?"

DR. JOHN L. BAUER:

"It seemed to me that the dilated part had the same thickness of wall as the other half of the stomach.

DR. JOSEPH P. MURPHY:

"Were any pictures taken?"

DR. JOHN L. BAUER:

"No; in that case no pictures were taken. I thought it was a gall-bladder."

DR. JOSEPH P. MURPHY:

"There is such a condition frequently noted at the operating table in irregular contraction of the stomach. Might it not have been a case where you would have a contraction of the cardiac end with a concomitant dilatation of the pyloric end?"

DR. JOHN L. BAUER:

"It was just as one might see the right lobe of the liver elongated, extending down in the abdomen, so the right half of the stomach was distended to fully twice the normal size of that portion of the stomach. Before opening the abdomen I believed I had a greatly distended gall-bladder."

DR. JOHN M. SCANNELL:

"I would like to ask the doctor if he had this case x-rayed after the operation. I had one of these cases three years ago and on having it x-rayed subsequent to the operation found that very little bismuth passed from the ileum into the sigmoid."

DR. JOSEPH P. MURPHY:

"The clinical fact that you got results in this case is the thing that counts. I would like to ask what results Dr. Scannell obtained with his case."

DR. JOHN M. SCANNELL:

"Not very good. I didn't see much change."

Fracture of Pelvis (Six Cases). X-Rays.

Russell M. Rome, M.D.

"The interesting part of these cases is the pictures. Four of these cases are cases which were brought into the hospital as a result of a railroad accident which occurred recently, and it is interesting to observe from these cases how severe a pelvic injury one may have without any bladder or other pelvic symptoms whatever. These cases were x-rayed after the emergency work had been done on other fractures. There were no symptoms to lead us to suspect any pelvic injury, no hematuria—nothing whatever, and in all of these cases which I am to present there was no injury of the bladder or pelvic viscera.

"This is the case of a patient 20 year, a girl, who is still in the hospital, and who received a compound fracture of the left tibia and fibula and a compound fracture of the right humerus, which are being treated. Nothing was done for this condition. There were fractures of the ascending and descending ramus of the right pubis. There is a marked separation at the left sacroiliac synchondrosis."

DR. LEWIS S. PILCHER:

"In this particular case, if it had not been for the use of the x-ray, would you have suspected the presence of this injury?"

DR. RUSSELL M. ROME:

"The only symptom that this girl presented of any difficulty whatever abdominally was some tenderness over McBurney's area, and before the picture was taken, which was about thirty-six hours after admission, we had made a diagnosis of traumatic appendicitis, but we waited upon further examination, not suspecting any pelvic fracture, and then discovered this. We did not suspect its presence at all from the clinical symptoms. We didn't know that she had it until the picture was taken.

"You see this separation here. This is the case of a Miss P., a maiden lady 42 or 43 years of age. This lady had a depressed fracture of the skull which we decompressed the evening of the injury, and she had a compound fracture of the right tibia and fibula which we cleaned up and plated. She had a fracture of the left humerus which we did nothing to operatively; and she had a compound fracture of the right tibia and fibula, all of which we attended to very carefully and the third day after admission to the hospital, the nurse upon catheterizing her said that she felt a protrusion at the pubis. Upon examination we felt it also and we took a picture and discovered this separation of at least four inches of the symphysis pubis, as you can see there. She is doing very well. Her brain condition is all right. She developed some infection of the right radius and ulna. There was no infection of the right tibia and fibula, and the left humerus is all right. This is a problem. We have not yet decided what to do with that. She is in poor condition and we don't know just what we are going to do here. She has evidently fractured right here at the junction of the ischium and pubis and broken off this piece right here, which has been turned around

and left this wide separation here. I have another picture of the upper part."

DR. ROGER DURHAM:

"What is shown by vaginal examination?"

DR. RUSSELL M. ROME:

"It shows nothing of any moment except this wide division there.

She had no bladder symptoms whatever."

DR. LEWIS S. PILCHER:

"Were there any suggestions of any hematoma around the pelvis?"

DR. RUSSELL M. ROME:

"Not at all. We were fooled on all of these cases, excepting one where there was hemorrhage. We didn't make a diagnosis in any, except in the case of this girl, until the picture was taken.

"I will have to hold this. You can see this tremendous separation at the left sacroiliac joint."

DR. LEWIS S. PILCHER:

"Was it really forced upward?"

DR. RUSSELL M. ROME:

"It was really forced upward to that extent, doctor. This is also a railway case.

"I have two pictures of Mary C., another railway case. You can see that separation there."

DR. LEWIS S. PILCHER:

"That is at the symphysis?"

DR. RUSSELL M. ROME:

"That is at the symphysis, doctor.

"This is the third case I am presenting now. You can see that from a little different angle. We do not think it is very much. It may be just cartilaginous. This is a picture taken from a different angle."

DR. LEWIS S. PILCHER:

"Are these cases still under treatment?"

DR. RUSSELL M. ROME:

"Yes, they are still under treatment.

"This is not a railway case. This man fell down the hold of a ship and sustained a fracture through here and through here, as you can see. He has recovered and gone home. That was simply strapped and he was kept in bed for eight weeks. He got good union. He is all right.

"In this peculiar case, unfortunately, unless you have the light at the very particular angle, you cannot see the fracture. This does not show very well, except through an electric bulb. This gentleman was under an electric motor vehicle fixing a battery which protruded from the floor of the car downward and, for some unaccountable reason, the car started to move and he was caught, his pelvis, his whole body, the pelvis being the point of approximation, and he was caught between the battery box and a pipe sticking up from the floor and squeezed him. He was brought into the hospital with signs of hemorrhage. I opened him immediately. I operated on him for hemorrhage. I went into the peritoneum and found extreme extravasation of blood in the prevesical space of Retzius which had burrowed up and dissected the peritoneum from some of the bladder and came on top of the bladder and then ruptured through the peritoneum in so far that serum was oozing right straight through his blood. On opening him I put my finger down and found that he had fractured the ascending ramus of the pubis. That was the condition for which we operated. He recovered and went home.

"This is the case of another girl who recovered. She was one of the railroad cases. I do not recall this case very well. She has not been under my care. She had a simple fracture right through here. She had no symptoms whatever. She recovered and went home.

"I would like to say a few words on the order of sequence of these cases and our failure to diagnose them. These cases were brought into the hospital on the night of the accident, 75 badly injured and shocked patients who survived. There were about 12 others who died a half-hour after admission. We attended to those things on Friday night which were perfectly apparent and also on Saturday and depressed 8 or 9 skulls with definite symptoms and cleaned up the compound fractures

and plated those immediately which we could not approximate by any other means, and we did the same thing on Sunday. On Monday we had some pictures taken of two of these cases which had a fracture of the pelvis. One of those was the last case, that of Miss V. B., which was the simplest case of all, and we diagnosed that as a fractured pelvis. The Pierce case was diagnosed by the nurse in charge when she was catheterizing the patient on Monday before we were having x-ray pictures taken. We didn't make the diagnosis in that case. It was made by the nurse, bearing in mind that this patient had a fractured skull, a fracture of the right radius and ulna and a fracture of the left tibia and fibula; and then, of course, we were much more assiduous in our efforts to hasten the x-raying of all these cases and as a result, discovered the rest of the pelvis which we had not discovered clinically."

DR. FRANK D. JENNINGS:

"When Dr. Rome told me that he had all these pelvic cases, I happened to have this case at the Greenpoint Hospital and thought I would show it. The patient in this case is a truck-driver about 45 years of age. On the 12th of November he fell from a high truck into a stable yard, landing of his glutei. He was brought into the hospital in a serious condition of shock, with marked abdominal rigidity. In going over him we found that you could take hold of the right os innominatum and, with very little effort, rock it very freely. Dr. Pilcher spoke of a hematoma. This man had a tremendous hematoma over his sacrum. The x-ray shows this wide separation of the right iliac synchondrosis and at the symphysis pubis. I put him up in a circular swathe of adhesive plaster thirty inches wide, raised the foot of the bed and applied a Buck's extension of 35 pounds. This picture was taken two weeks afterwards, and it shows that the work has accomplished a little something. It hasn't brought them together by any means, but it has brought them closer together. This is not a fracture of the pelvis, but a rupture at the symphysis pubis and the right sacroiliac joint."

DR. JAMES C. KENNEDY:

"It was peculiar that there was no rupture of the bladder in the cases which the doctor showed here tonight. About the 20th of August we had a boy who was brought into St. Mary's Hospital who had had a wagon wheel pass over his pelvis. I saw him about four hours after he entered the hospital. His abdomen was distended, he had some temperature, and he was shrieking with pain. He was unable to empty his bladder. Before I got there, the house surgeon had passed a catheter, which I think should not have been done, and he drew off some bloody urine. There was not much blood, just a little. By palpation of the abdomen over the bladder with the finger in the rectum we did not discover anything at all in the bladder, but he had a fracture of the pelvis and separation of the symphysis with a fracture of the left transverse and ascending rami of the pubis. The case was urgent and, contrary to the usual method of opening the abdomen, which I hesitated to do because of his abdominal condition (the abdomen was distended and he had some signs of peritonitis), I did an external urethrotomy on him and passed a large sized catheter into the bladder and put him in the exaggerated Fowler position so as to prevent the urine, or the course of the urine, from running into the peritoneal cavity. He was very restless and after a few days, failing to keep him quiet, I put on a plaster Paris spica from the knee up to the pelvis, drawing his pelvis as closely together as possible. Four or five days afterwards he developed a fistula on the left side. I forgot to mention the fact that his scrotum was very much enlarged. That was incised when we did the external urethrotomy.

"That boy came into the hospital some time in the latter part of August and went home a few days ago in pretty good shape. The symphysis seemed to be intact, the fracture did not seem to bother him, the urinary fistula on the left side closed, and the perineal opening also closed. Of course, the advantage in his case was his youth. He was a strong, powerful boy of 14 years. He is still under observation, but at the present time he seems to be doing very well. He is almost entirely well as far as we can observe.

"I was surprised that in the doctor's cases he did not have any ruptures of the bladder, particularly in the case where there was a separation of the symphysis."

DR. WILLIAM LINDER:

"I wish to report the case of a boy 12 years of age, who was thrown off a motorcycle about three years ago. This boy came in with symptoms of concussion of the brain. Besides this he had a large extravasation of urine and a large hematoma over the symphysis pubis, and a fracture of the pelvis was diagnosed. A suprapubic incision was made in this case and we found a great deal of bloody urine, and there was disclosed a comminuted fracture of both sides of the pubis. I did a suprapubic cystotomy. The bladder was ragged and in spite of the fact that the urine bathed these fractures, he made an uneventful recovery. There was no suppuration of his compound fractures and he left the hospital in good shape.

"I think that in these cases where we have extravasation of urine instead of doing the usual operation of external urethrotomy, they should be opened in the space of Retzius. This case was certainly very satisfactory."

DR. JAMES C. KENNEDY:

"In the case which I spoke of the drainage was very much better than any drainage you could get suprapubically. I believe that in the condition which this boy had if we had followed that method we would have increased the abdominal condition, particularly his threatened peritonitis, or that which he already had. I prefer external urethrotomy in a case of this kind."

DR. JAMES M. DOWNEY:

"I have had two cases where I have had to open the bladder following fracture of the pelvis, and in both of these cases I opened them up anteriorly. I think the principal thing to do is to make the diagnosis early and if you open them up and drain early, you don't have infection. We see quite a number of cases of fractures of the pelvis. I saw one case like Dr. Rome presented this evening where one-half of the pelvis was shoved up from one side, and yet from the number of fractures of the pelvis that we see, I feel that there are few ruptures of the bladder that occur at the same time. It has been a common experience with every man to look for a rupture of the bladder, for some particular reason or other, in a serious accident of that kind, but considering the number of instances where we have a fracture of the pelvis, there are very few ruptures of the bladder."

At this point in his remarks, Dr. Downey referred to one case in particular which Dr. Rome showed and in this connection cited a case which he himself had had, and said:

"In one case which I had we were able to reduce the fracture because the woman was very thin and no anesthetic was necessary. We were able to get it down pretty well and at that time we put on a plaster cast and we tried extension and left it on for two weeks and she got a fairly good result with some tilting of the pelvis. She got union and after a short time she was able to accommodate herself in walking so that you could hardly notice it."

DR. HENRY F. GRAHAM:

"I would like to inquire if there are any operative measures employed for bringing about an ankylosis of the sacroiliac synchondrosis—bone grafts or anything of that kind. I don't recall having seen it in the literature and wondered recently in regard to that in several cases."

DR. LEWIS S. PILCHER:

"I never saw it in the literature."

DR. JOSEPH P. MURPHY:

"Several years ago there was an article (I forget by whom or where it was written) in which the statement was made that fractures of the pelvis were of more frequent occurrence than was usually noted by clinical observers. The man who wrote this article had taken a series of x-ray plates in a number of cases that had been subjected to trauma which might have produced fractures of the pelvis and found that a large percentage of them had received such fractures. The cases which Dr. Rome has presented here tonight are quite in keeping with this man's findings. In the majority of the cases which the doctor has presented there were no clinical symptoms which would guide the observer, without the use of the x-ray, in making such a diagnosis, and, undoubtedly, many of you gentlemen have had such cases

on your services that have escaped your diagnostic skill, because of the fact that you did not have the proper x-ray apparatus at hand to elucidate for you. Again we are taught in the text-books, in the treatment of fractures of the pelvis, to immobilize them and to use a Bradford frame. I do not know what that is. But I do know that in many of those cases of fracture of the pelvis you get particularly good results by just strapping them with adhesive plaster and without the use of the Bradford frame and without any plaster Paris case. After all, the end result, the good functional condition is the thing that is desired.

"It is rare that you see such a number of cases, such a sequence of cases showing such extensive injuries to the pelvis with so few clinical manifestations."

DR. RUSSELL M. ROME:

"In answer to Dr. Kennedy I would say that the only case that presented any symptoms whatever was the case of Miss B., 20 years of age, who had the fracture which I presented to you. We had difficulty in locating it, but it was found upon examination of the plate. Two or three plates were necessary before we decided that she had a fracture of the pubis. There was no separation of the fragments, just a little disturbance of the alignment; that was all. She was the only one who presented any symptoms that there was any pelvic injury. As I say, the first pelvis was discovered by the nurse, and then we began taking pictures on Monday morning and discovered the rest of them. Three of these cases have recovered and gone home.

"The problem presenting to us now is the fixation of those pubes in some way, shape or manner. I don't know how to do it exactly. We are thinking over it now. These three cases were fractured through the pubis. The fragments were distorted. We cleaned their other injuries. They have not been in shape to undergo any serious operative procedure. There is unquestionably some union between the fragments. I don't know how to get them together. Simply bringing it around would leave a distortion there on account of the fractures of the pubis being near the symphysis."

DR. JOSEPH P. MURPHY:

"Will the doctor tell us a little more about the treatment which was pursued in these cases?"

DR. RUSSELL M. ROME:

"The three cases that went out and recovered without much displacement were simply treated with heavy adhesive plaster strapping, just to keep them immobile in that manner, and they recovered and went home. In the cases of these other patients, on account of injuries to other parts, namely, fractures of the skull the long bones, compound fractures, etc., they are simply being treated in extension, pulling down the side which is tilted up, and with some adhesive plaster strapping over the pelvis. That is all we are doing at the present time."

DR. FRANK D. JENNINGS:

"I would like to ask Dr. Rome if it is a routine practice to plate compound fractures at once, or was it just done in the rush?"

DR. RUSSELL M. ROME:

"In reply to Dr. Jennings' question I would say that we have been plating compound fractures in poor position for the last two years and have found that the number of infections occurring after this treatment is no greater than in the unplated compound fractures. We put them in position right away. We do not subject them to a second operation, and with the use of Dakin's solution and the Carrel technique we have fewer infections since plating these fractures than we have had before."

DR. JAMES M. DOWNEY:

"In regard to plating, I would ask if there are any indications of osteomyelitis or necrosis following the plating."

DR. RUSSELL M. ROME:

"Replying to Dr. Downey's question I would say that we have had no greater proportion of osteomyelitis following compound fractures which were plated than we have had following compound fractures which were not plated."

DR. FRANK D. JENNINGS:

"I would like to know what percentage of plates must be taken out."

DR. RUSSELL M. ROME:

"Answering the question asked by Dr. Jennings as to the percentage of plates which must be taken out, I would say that most of the cases which are infected subsequently have to come out."

DR. FRANK D. JENNINGS:

"Do you take them out before leaving the hospital, as a rule?"

DR. RUSSELL M. ROME:

"Yes. When the case becomes infected and the plate loosened we take it out. It is a foreign body and serves no purpose. When we have a wide displacement of the fragments and when our efforts to reduce it are unavailing, we put on a plate and a least get the fragments in alignment, and there is no greater infection that way than in the other cases and no more than one would expect to get in a long series of persons, feeling all the time that something should be done to put the fragments in position."

Paper. Military Surgery in the Middle Ages.

Lewis S. Pilcher, M.D.

DR. WILLIAM LINDER:

"As the Chairman has put it, there is very little to discuss. We have been instructed by the doctor's paper. One benefit that I can see is that the doctor compelled me to read up, and I was very pleased to find the records of the Middle Ages.

"Dr. Pilcher mentioned the great surgeon Pare, to whom we owe a great deal. It was he who first deliberately ligated vessels. Up to that time when the poor soldier had an amputation the hot cautery or boiling oil was the only means of stopping the hemorrhage. He was the first to conceive the idea of ligating vessels and he laid down the principles of surgery. I think we can put Pare down as the first one to ligate vessels, Morton, the American, who discovered anesthesia, and Lister, the English physician, who discovered antiseptics, and these three practically form the foundation of modern surgery. And, then, later in history there is Richard Weissman, who is considered the father of surgery. He conceived the idea of the prompt extraction of foreign bodies, or bullets, while the fluid is warm and, as he says before external influence (he did not say infection) has destroyed the anatomy.

"Another interesting reading was that it was customary for the surgeons after the battle to visit each other's patients, and it was a great disgrace for a surgeon to be caught with a patient from whom he had not extracted a foreign body.

"The treatment of compound fractures was always amputation, and this particular gentleman, Weissman, who was a great naval surgeon, relates an experience where one of the sailors was very badly bruised and had received a compound fracture of the arm and he was just about to take his razor and amputate the arm, for he did not require a saw (the pain was severe), when a fire started in the ship and he hurriedly put on a bandage. He could not sleep that night, wondering what would happen to his patient. The next morning he was surprised to find that the patient had not suffered very much pain and when he talked to him about amputation, he said, 'My wound has been dressed;' and when the surgeons came to visit the patient they did not speak too ill of him for leaving the arm, but said he might have to remove it after all. That was the first authentic case where a compound fracture of the limb was saved and he said the patient had a good useful arm with a very strong callus.

"I certainly learned a great deal from Dr. Pilcher's paper."

DR. HENRY F. GRAHAM:

"I am always glad to hear from Dr. Pilcher and wish we had the privilege of listening to him oftener.

"One advantage which the surgeons of the Middle Ages had over us was in these dry shaves because they had a very great number of surgeon-barbers. They would come in very handy in these days of dry shaves for we could use a few of them very nicely in the preparation of patients prior to operation.

"It has been a very pleasant and profitable evening to me."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE *LONG ISLAND MEDICAL JOURNAL*

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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3 PAGES

THE ORTHOPEDIC TREATMENT OF GUNSHOT INJURIES.

THE ORTHOPEDIC TREATMENT OF GUNSHOT INJURIES. By Leo Mayer, A. M., M. D. With introduction by Col. E. G. Brackett, M. C. N. A. Phila. & London, W. B. Saunders Company, 1918. 250 pp. 184 Illustrations. 12mo. Cloth, \$2.50.

Among the many results of this world war, not the least are the contributions to the science of medicine. There will be volume upon volume reciting the advances in surgery and more especially traumatic gunshot surgery, which includes the orthopedic treatment of gunshot injuries. Under this heading comes the recent volume of Dr. Leo Mayer.

Though a small volume there is much of interest and advancement to attract the orthopedic surgeon as well as the student. The recent advances and the treatment of nerve injuries are well described in its appropriate chapter and one must be greatly impressed by the operative procedures used by the author in these cases. His statistics of forty per cent operative recoveries in cases of complete nerve division show the need of much more experimental work in this line.

The chapter on tendons and tendon operations is most instructive from the standpoint of operative surgery and emphasizes the many advances made in tendon transplantations.

The last two chapters on treatment of amputation and the orthopedic reconstruction hospital bring out many points which bear emphasis. How many of us have witnessed amputations with little thought given to the fitting of an artificial limb. Were the author's points more heeded there would be more comfort to the patient in wearing an artificial limb and less difficulty on the part of the brace maker in fitting his patient.

The orthopedic reconstruction hospital though only a chapter in this small volume contains as much as many volumes.

This subject we may say is a direct outcome of the war. Here we have emphasized the manifold activities of such an institution, the importance of which we are beginning to recognize and which will increase as time goes on.

The book is well written in a clear and simple style. Our only fault is that the author tries to give us too much in his two hundred and forty pages.

ABSTRACTS OF WAR SURGERY.

ABSTRACTS OF WAR SURGERY. An Abstract of the War Literature of General Surgery that has been published since the Declaration of War in 1914. Prepared by the Division of Surgery, Surgeon General's Office. St. Louis, C. V. Mosby Company, 1918. 434 pp. 8vo. Cloth, \$4.00.

As the name implies, this is simply an abstract of the literature on war surgery gotten up in a plain business-like manner without illustrations and printed on coarse paper.

The abstraction is well done and the headings of articles and even paragraphs are brought out in large type so as to attract the eye when searching for a given topic.

The articles are from the French and Italian as well as the English and American journals, and are grouped under the following headings: general topics, wound infection and treatment, tetanus, gas gangrene, abdomen, chest, cardiovascular surgery, joints, fractures, burns, anesthesia in warfare, trench-foot, foreign bodies, peripheral nerve injuries, and jaws and face.

There is no clue as to the identity of the reviewers but it must be said that their work has been well done, and that this concise, thoroughly well boiled down resume of the literature will prove of the greatest value to the seeker for information and data on this subject.

W. H. DONNELLY.

ROENTGEN DIAGNOSIS OF DISEASES OF THE HEAD.

ROENTGEN DIAGNOSIS OF DISEASES OF THE HEAD. By Dr. Arthur Schüller. Authorized translation by Fred. F. Stocking, M. D., M. R. C. St. Louis, C. V. Mosby Company, 1918. 305 pp. Illustrated. 8vo. Cloth, \$4.00.

The author presents in excellent manner and didactic style the possibilities in Roentgen examination of the head, a field hitherto comparatively barren. The importance of recognition of the normal is emphasized in order that practical interpretation of pathological processes can be made.

The subject is presented in three complete chapters; the first of which deals with the normal and the variations therefrom; also the sexual, racial and individual irregularities. Various anomalies, mal-formations and diseases of the skull are excellently presented in chapters two and, after discussion of the clinical history and physical of the different conditions, case reports with the Roentgen and often postmortem findings are presented. The latter are exceedingly helpful in checking up the X-Ray reports. The diagnosis of intracranial diseases including the pressure effect of soft tissue tumors upon the vascular and osseous structures, are admirably portrayed and generously demonstrated in the final chapter.

The subject is a specialty of a specialty and can therefore be hardly considered of interest but to the radiographer. Schüller claims the presence of positive Roentgen findings in the skull in about thirty per cent of all epileptics which, if substantiated, will soon revolutionize the therapy of this intractable condition.

The scarcity of illustrations, aside from affections of the pituitary fossa, is to be regretted although the schematic diagrams are exceedingly helpful. With the author's vast experience and opportunity for study together with the excellent style in which the subject is presented, this book becomes extremely valuable. There are numerous pathological Roentgen signs discussed, many of which are original observations and should receive the highest commendation.

M. G. WASCH.

RATIONAL HYDROTHERAPY.

RATIONAL HYDROTHERAPY. By J. H. Kellogg, M. D., LL. D., F. A. C. S. Fourth Revised Edition. Battle Creek, Mich., Modern Medicine Publishing Co., 1918. 1247 pp. 302 illustrations, 107 plates. 8vo. Price, \$6.75.

This is the fourth revised edition of a

work first published in 1900 and is a very imposing and voluminous tome.

If one is to accept the statements found therein, there is no condition or symptom which cannot be cleared up or at least alleviated by hydrotherapy; and consequently all other therapeutic measures as well as drugs must be considered as superfluous and unnecessary.

It is quite evidently the work of an enthusiast on the subject as the author is well known to be, and the average reader and physician will undoubtedly take the middle course and try to abstract that which will stand up under the test of practicability and reliability.

The book is well illustrated both with diagrams and photographs and has an excellent index which refers the reader to various numbered paragraphs in the text instead of to pages as is usual.

There is much of value in this treatise for the practising physician, providing he does not allow himself to be carried away by the writer's enthusiasm.

W. H. DONNELLY.

RADIO-DIAGNOSIS OF PLEURO-PULMONARY AFFECTIONS.

RADIO-DIAGNOSIS OF PLEURO-PULMONARY AFFECTIONS. By F. Barjon, Translated by James A. Honeij, M. D. New Haven, Yale University Press, 1918. 183 pp. Illustrated. Plates. 8vo. Cloth, \$2.50.

This is a work which should appeal to the clinician as well as the roentgenologist, for it is a conservative exposition of the value of the Roentgen rays in the diagnosis of diseases of the plura and lungs.

The author emphasizes the necessity of co-operation between the Clinician and the Roentgenologist in this work, and also the importance of a good clinical history before the interpretation of the Roentgenological findings is attempted. He also points out how necessary it is that the interpretation be made by a physician who alone is capable of rendering an opinion, and reconciling the clinical history and Roentgenological findings.

Part I is devoted to a discussion of the methods of examination. The fluoroscopic screen examination is very fully discussed, but we feel that the author does not sufficiently emphasize the stereoscopic plate method, without which, any examination of the lungs is incomplete.

In Part II affections of the pleura, including pneumothorax are considered. These chapters are by far the best in the book and the subject is treated in a most comprehensive and illuminating manner. In Part III affections of the bronchi, including foreign bodies are treated briefly.

Part IV treats of pulmonary lesions, including acute infections, tuberculosis and lung tumors. The author classifies tuberculosis in three groups namely: those in which no physical signs are present, but there is suspicion of the disease; those in which there are physical signs and clinical evidence of active disease, and chronic cases, with advanced lesions. The author's discussion of the first group is not altogether satisfactory, but the last two groups are very fully and satisfactorily covered. The last part deals with penetrating wounds of the chest and their complications and is based on a large amount of military material.

The illustrations are good, as a rule, and the typography is excellent. We believe this book should appeal to all those who wish to familiarize themselves with the possibilities of this method of diagnosis in lesions of the lungs and pleura.

J. G. W.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

EQUILIBRIUM AND VERTIGO. By Isaac H. Jones, M. A., M. D. With an Analysis of Pathologic Cases by Lewis Fisher, M. D. Phila. and London, J. B. Lippincott Company, 1918. 444 pages, with 130 illustrations. 8vo. Cloth, \$5.00.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. Macleod, M. B. Assisted by Roy G. Pearce, B. A., M. D., and by others. St. Louis, C. V. Mosby Company, 1918. 903 pages with 233 illustrations, including 11 plates in colors. 8vo. Cloth, \$7.50.

MENTAL DISEASES. A Handbook Dealing with Diagnosis and Classification. By Walter Vose Gulick, M. D. St. Louis, C. V. Mosby Company, 1918. 142 pages. Illustrated. 8vo. Cloth, \$2.00.

INFORMATION FOR THE TUBERCULOUS. By F. W. Wittich, A. M., M. D. St. Louis, C. V. Mosby Company, 1918. 150 pages. 12mo. Cloth, \$1.00.

CLINICAL MEDICINE FOR NURSES. By Paul H. Ringer, A. B., M. D. Philadelphia, F. A. Davis Company, 1918. 286 pp. Illustrated. 12mo. Cloth, \$2.00.

JOHNSON'S STANDARD FIRST AID MANUAL. Suggestions for Prompt Aid to the Injured in Accidents and Emergencies. Edited by Fred. B. Kilmer in collaboration with Eminent Surgeons, First Aid Authorities and Specialists. Eighth Edition Revised. 143 pp. Illustrated 8vo. Published by Johnson & Johnson, New Brunswick, N. J. Cloth, 50 cents.

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NO. 2.

SOME DIFFICULTIES IN THE DIAGNOSIS OF DISEASES OF THE NERVOUS SYSTEM.*

By Frederick Tilney, M. D.

WHEN Dr. Holden asked me to speak on this seemingly pessimistic subject, I became appalled at the wealth of material which he had put at my disposal to talk about directly out of my own experience. Diagnosis seemed to become an unbroken procession of difficulties. And yet, as my difficulties may have been experienced by others, there seemed reason to believe that it might be profitable to make a critical review of some of them.

It would perhaps be too diffuse a discussion to take up in general the difficulties in the diagnosis of nervous diseases. I have, therefore, classed these diseases in convenient groups with particular reference to the frequency in which difficulties occur in them.

The first group, and undoubtedly the one most prolific in diagnostic troubles, is that which includes the functional diseases. Under this heading comes that array of disorders which, although they produce such great amount of suffering, dominate the lives of many individuals and serve to depreciate the economic efficiency of no small portion of the community, yet have no definite structural or organic basis to explain them. Here we find that prevalent group diseases estimated to constitute anywhere from 50 to 70 per cent of every practitioner's clientele and which for this reason makes the individual so afflicted a medical responsibility, not only to the neurologist, but even more to the general practitioner. How familiar these cases are to everyone, surgeon and internist alike, and how difficult is the problem which they present in diagnosis as well as treatment. Generally speaking these disorders are referred to as the *Neuroses*, and one has but to read the current literature which has sprung up out of the war to realize the importance and the profound economic significance of these diseases which in war-time have rendered thousands of soldiers incapable for military service. The striking prominence

* Read before the Medical Society of the County of Kings, in Brooklyn.

which the war has given the Neuroses is an emphatic advertisement of the fact that diseases of this sort may and do exist in large numbers where the men are congregated together, under the stress of extreme circumstances. Within our midst for many years before the war these functional nervous diseases have held sway in even more startling proportions, for the number of cases of what we choose to call Shell-shock and the like is not comparable to the number of the same character of disorders growing out of the exigencies and strife of civilization.

Some of these functional diseases, the Organo-neuroses, manifest themselves as disturbances of some of the organs of the body, such for example, as the stomach or intestines, causing what we have been pleased to label *Nervous Indigestion* or *Neurotic Dyspepsia*. Frequently the organ affected is the heart, and here, without any evidence of organic change in the cardiac muscles, in the valves, or the lining of the ventricles, the patient suffers in such a way that his affliction comes to dominate his behavior and renders him incapable of filling his allotted place.

Again it may be the bladder, or the sexual functions that suffer, giving rise to an incontinence or inconvenient urgency, a loss of sexual power or an extreme eroticism. The difficulties in the diagnosis of these conditions lie in the fact that we are prone to minimize the disorder and with a more or less casual, if not impatient admonition, pass the patient on to further degrees of discouragement and a multiplicity of medical advisors. From the standpoint of diagnosis no such case as this should be minimized and only the most careful process of exclusion to establish the fact that the disease is non-organic in its origin, will suffice.

The Organo-neuroses represent one of the most neglected, and at the same time, one of the most troublesome class of disease with which we have to deal. They will remain a perplexing, as well as an embarrassing group until we have come to know more of the nature of the nerve control exerted by the central nervous system upon the internal organs. This involves the problem which has attracted no little attention in the past few years to conditions now generally referred to as Sympathicotonia and Vagotonia, diseases resulting in dysharmonies between the regulation imparted to the organs by means of the sympathetic system and the counter-balancing control held over most of the organs through the pneumogastric nerve or parts homologous to it.

The Psycho-neuroses, including that familiar group of hysterical disorders to which may be attributed the functional paralyses, mutism and amblyopia, deafness and anaesthesia, trance-states and catalepsy, together with many unusual clinical symptoms which seem contradictory to all the laws of anatomy and physiology, are also in this group. The more spectacular hysterical manifestations seen in troops who have sustained the rigors of trench warfare have their counterparts in the soldier's family as they wait, expectant and fearful, for the dread news that may come. The father bids his son farewell hoping despairingly to see him again, and the boy, after days or perhaps weeks in the trenches exposed to an almost constant barrage of high explosives, getting too little sleep, no proper exercise and not the best food, suddenly breaks down and begins to weep. Every shell that explodes near by throws him into a frenzy over which he has no control. Trem-

bling and weeping he is brought to his superior officer. The boy assures him that he will go with his comrades anywhere, obey any command, but the explosion of the shells simply unnerves him. Finally when the order comes to go forward, the boy dashes on with the others and in the first rush, falls mortally wounded. A cable message brings this word to the father. He is staggered as if struck by a missile and falls unconscious. He remains in coma for twenty-four hours and upon regaining consciousness, is found to have a complete right-side hemiplegia with a complete hemianaesthesia. It is believed that he has suffered from some organic lesion. His examination, however, shows that he has none of the necessary signs to confirm this supposition; all tests make clear the fact that essentially the same factors which had produced the hysterical breakdown in the son, under the ceaseless fire of the guns, has produced the hysterical hemiplegia and hemianaesthesia in the father under the unceasing strain of months of anxiety.

Although we are aware that there is such a thing as war-neurosis and war-hysteria, we must be careful lest we take too much for granted and in haste fall into the error of labelling cases which have this appearance, namely, functional disorders. It must be borne in mind that a hysteria may not only mask a true organic condition, but very frequently be the attendant or outgrowth of some actual and structural change in the nervous system.

It seems perhaps superfluous to mention the obvious difficulties connected with mental diseases, but it is becoming quite as obvious that the problems arising in connection with psychiatry will more and more demand the attention of the entire medical profession. These are not problems which may with any degree of satisfaction be left entirely to the psychiatrist. Usually the evil has long since established itself when the case comes into his hand. It must be the medical advisor of the family who first detects the significant and suspicious out-croppings which are the forerunners of these diseases, for the real hope in the treatment of mental diseases lies in their early recognition or else in the prompt dealing with the tendencies which seem to underlie them.

The other day a high-school girl was brought to me with a story that she was convinced that her father had hypnotized her and that as he was a descendant from the Hohenzollern, the curse of that ill-starred family was upon her. Her teachers had noticed a consistent falling-off in the character of her work. Her parents had observed a growing apathy and other dilatory tendencies. The entire development of this mental disturbance was of a few month's standing, but its incipency had been noted by the school authorities who, thanks to the new stimulus given to mental hygiene, are beginning to devote more attention to these matters which are of such vital importance to the psychic health of the coming generations. This, to all appearances, was a case of beginning Dementia Praecox, in a stage of development for which, at the present time, we have no adequate means of treatment. It was quite apparent that her home was not the proper environment, inasmuch as she was suffering under the delusion of her father's mysterious influence upon her. On the other hand, no adequate institution for such cases exists at the present time.

The subject of intermediate institutions for the proper care of what may be called borderline or incipient psychoses is a subject which must engage our attention much more earnestly than it has in the past. We have not as yet entirely emerged from our state of medievalism in matters pertaining to the insane. If we have ceased to regard these patients as criminals, struck off their fetters and transferred them from prisons to comfortable and hygienic quarters, we have still left much undone in the matter of intelligent therapy, especially in the prophylaxis and prevention of mental disease. A mental case such as the one mentioned presents many difficulties in diagnosis. Much care should be exercised in pronouncing too definitely the actual type of mental disorder, for it seems wise to arrive at some conclusion only when the patient has been under sufficiently long observation to enable the observer to exclude the many psychotic possibilities which will arise in nearly every case. The too-early diagnosis of Dementia Precox will often prove an embarrassment. Dementia Precox so closely resembles, in its early stages, a simple depression, a confusional insanity or an exhaustion psychosis, that it is the part of wisdom to reserve opinion as to the exact character. It is a common experience to see the patient labelled Dementia Precox make a brilliant recovery and in this way seem to controvert the diagnosis.

Manic Depressive Insanity also comes into this group. Its difficulties, however, are much diminished by a carefully taken history which gives evidence of a series of more or less well-defined and repeated attacks of mental disorder. In any event, the attempt to make a diagnosis of a mental disorder on the strength of a single observation is a precarious undertaking, particularly as the prognosis of the condition depends so much upon the class in which the disorder is placed.

A particularly difficult group from the standpoint of diagnosis are the syphilogenic affections of the nervous system. Neurosyphilis may present itself in three forms, each of which manifests more or less marked mental symptoms. In each the prognosis is considerably different.

Paretic Neurosyphilis, although modern intensive treatment has prolonged life and in certain respects diminished the mental ravages of the disease, is an invariably fatal disorder.

Meningo-vascular Neurosyphilis, on the other hand, is in the majority of cases, amenable, to treatment, and though its mental symptoms may be quite as severe, if not more active, than those of paresis, intensive treatment usually gives brilliant results.

The third form, Tabo-paresis, combines the symptoms of Tabes and Paresis, the latter element in the diagnosis, however, being quite frequently difficult to distinguish. Paresis is to be distinguished from Meningo-vascular Neurosyphilis by the fact that the colloidal gold curve is of the paretic type in this disorder and furthermore the Wassermann reaction in the spinal fluid and blood is constant and but little affected by intensive treatment, whereas in the Meningo-vascular Neurosyphilis, the Wassermann reaction more or less completely disappears. Paresis complicating Tabes will ultimately reveal itself by the presence in the spinal fluid of the paretic type of gold curve.

A still greater difficulty arises from the fact that Neurosyphilis

may stimulate any one of the better known and more common psychoses. Indeed, there have been many reported cases of Neurosyphilis which were so like Manic Depressive Insanity as to justify that diagnosis, and similarly Neurosyphilis may simulate Dementia Precox. In this light, it is essential that all cases of mental disorder should be completely Wassermannized, that is to say, the Wassermann test should be done both upon the blood and the spinal fluid, in order to eliminate syphilis. Many cases of Neurasthenia have been allowed to go for a long period under this diagnosis, although the essential lesion was a demonstrable Neurosyphilis.

In addition to the contributions which it has made to the psychoses and psycho-neuroses, the war has served to advance our knowledge in Neurology most conspicuously in disease and wounds affecting the peripheral nerves. It has long been a matter of uncertainty to distinguish between the various kinds of affection of the nerves encountered in civil practice, but the war, by furnishing a great number of nerve wounds and injuries, has afforded the opportunity to formulate more clearly our conception concerning peripheral nerve diseases. We now know that it is possible to distinguish the symptoms which indicate the complete interruption or severance of a peripheral nerve, and the difficulties which formerly arose in this connection may be eliminated in the future if certain simple, fundamental rules are borne in mind. This should be of great service to the surgeon and guide his course in contemplated surgical interference in the interests of nerve repair.

When a nerve is completely severed, this lesion is followed by complete, immediate and invariable paralysis; by complete, immediate anæsthesia; by the absence of pain and also the absence of trophic changes. This is known as the *Syndrome of Complete Interruption*.

When a nerve becomes compressed, the paralysis is more or less complete; there is muscular atrophy; a variable degree of anæsthesia; an absence of pain in the course of the nerve and also an absence of trophic disturbances. This is known as *Syndrome of Compression*.

When a nerve is irritated due to a wound, a scar or an inflammatory process, the paralysis may not be complete, the muscular atrophy may be slight; the pains are vicious and of increasing severity, and there are trophic disturbances of the skin, nails, hair and joints. This is known as the *Syndrome of Irritation*.

After a nerve injury, if formication is present on pressure of the nerve, if there is evidence of returning electrical conductivity and returning muscle tone, as well as sensibility, this is sufficient evidence to indicate that the nerve-fibers are regenerating, and all surgical interference should be withheld. The combination of symptoms resulting from this clinical condition is known as the *Syndrome of Regeneration*.

Of lesions affecting the central nervous system, Multiple Sclerosis is the bete noir of diagnosis. Multiple Sclerosis, the most protean and often the most elusive of all the diseases affecting the central nervous organs, should always be borne in mind and properly eliminated before the diagnosis of hysteria may be made. It is entirely possible for this disease to be present in

the absence of all of the classical triad of Charcot, scanning speech, intention tremor and nystagmus. Its diagnosis, however, depends upon the fact that the symptoms cannot be explained by any single lesion and must be based upon a multiplicity of organic structural changes in the spinal cord or brain. Another valuable aid to the diagnosis in the recognition of Multiple Sclerosis is the appearance of scotomata in the visual field and the very frequent appearance of a temporal pallor of one or both optic discs. Not infrequently a post-diphtheritic polyneuritis is incorrectly regarded as a polyomyelitis and a careful review of the history will usually serve to reveal the diphtheritic nature of the disorder.

An important element in the differential diagnosis between peripheral nerve and spinal cord disease in which sensation is affected is to be found in the fact that in peripheral nerve affections the sensory disturbances occur exclusively in the extremities or in the anterior part of the body, while in the cord diseases, the sensory disturbances, while occurring in the areas already mentioned, are invariably present in the back of the neck, between the shoulders or along the spinal column, depending upon the level of the lesion.

Cerebral localization offers a fertile field for error in the diagnosis of organic neurology. There is no neurologist or neural surgeon but will admit to many mistakes in this particular. Repeated examination and a process of exclusion alone are to be depended upon for the best results, but even with the greatest care and most critical analysis of the symptoms, cerebral localization is often in error. This fault is attributable more to defect in our knowledge than defect in our method of examination or reasoning. In this class of work at the Presbyterian Hospital we have adopted a system which bids fair to be of much clinical value. In every case in which a diagnosis of this kind is to be made, a differential diagnosis on the basis of percentage probability is carefully drawn up by the examining neurologist and the surgeon. The localization and character of the lesion is then determined upon, written on the history and signed by both examiners. At the time of operation or as is the case in many instances, at post-mortem, the clinical diagnosis is compared with the pathological findings and a clinical analysis made to show why the error has occurred and by what means it may be avoided in the future. Before long we expect to publish a series of such errors with a critical review of them.

Another large class of disorders closely allied to the nervous system is the endocrinic group, concerning which so much is being written in the present day. The syndromes of the thyroid gland seem to be well established and there should be but little difficulty in recognizing Graves's Disease, Cretinism, Myxœdema or Myxœdematous Insanity. When it comes, however, to the finer lines that are now being drawn in the syndromes which are rapidly being evolved in connection with the pineal body, the suprarenal cortex and the suprarenal medulla, the testicle, ovary and parathyroid, there is reason for much conservation. Even in the case of the pituitary body, where syndromes of excessive secretion and diminished secretion have become diagrammatic familiarities, many reservations must still be made. The more

extreme disciples of the endocrinopathies, although they have made a valuable contribution in stimulating interest in the functions and diseases of the internal secretory organs, are still lacking in many important facts to carry conviction into their deductions.

If I have made an unreserved admission concerning the difficulties in Neurology—and many more might be added to the list—I take a poor consolation from what I see and hear in the other branches of medicine. I believe that there are other difficulties than those peculiarly neurological. Perhaps you will bear me out that these same defects are to be found elsewhere, and if this is so, we may justly ask why. In all probability the root of the trouble is to be found in two principal defects, namely, the imperfect revelation of the clinical conditions by means of our methods of examination, and second, the imperfect correlation and interpretation of the facts revealed. Even a superficial analysis of present day diagnostics would soon convince one that there were several points in which improvements could be made. There are doubtless many others than those which come presently to mind, but it seems that in the mere matter of its ethics, the process of diagnosis could be brought into a healthier state. It is so common an experience to encounter what may be termed moral incertitude in diagnosis. We seem to be quite universally afraid of being wrong, of having someone else find us in error, and so we hedge or do not commit ourselves at all. This, of course, is ethically quite wrong since we should in every case have an opinion, and having it, be willing to express it. Error in diagnosis may have a greater virtue than the seemingly more brilliant, but often fortuitous circumstance of being correct. The instructive value of an erroneous diagnosis is often many times that of a correct diagnosis.

Another defect lies in the technique of diagnosis which could be made good by the establishment of diagnostic clinics.

Since disease may be regarded as a deviation in the normal life processes, a clear conception of these normal processes of life becomes fundamental. This presumes a knowledge of all of the organs, their individual as well as their integrative significance and the means by which they are brought into and maintained in coöperation. It is not difficult to appreciate the necessity of understanding the normal workings of any mechanical device before we undertake to repair it, yet it cannot be said that we have provided ourselves with such a practical and full understanding of the human mechanism before we undertake the treatment of its disorders. In the main, we have made disease our chief interest. As a matter of fact, life is the principal theme, of which disease is but a corollary. Although the practical view of medicine should not be deprecated, it does, however, leave much to be desired, nor is this so-called practical limitation in point of view invariably in the interests of practical application. It nowhere encourages an approach to the salient problems concerning the significance of life; it omits, as purely theoretical, the consideration of development and adaptation. If it leads up to a facility in the manipulation of professional commodities, it quite as much fails to produce the philosophical attitude upon which the advances as well as the practice of medicine must ultimately depend.

THE SIGNIFICANCE OF GLANDULAR ENLARGEMENTS IN CHILDREN.

W. H. Donnelly, M. D.

The glands and lymphoid tissues are so prone to enlargement in children and from such varied and widely different causes, that a study of the etiology and significance of glandular enlargements takes one through almost the entire field of pediatrics.

During infancy, that is up to three years of age, the bronchial and mesenteric groups are most frequently affected; while from three to ten years of age the cervical and other groups draining the *pharynx* and tonsils assume the position of prominence.

Lymphatic gland enlargement may be *generalized* or *localized*. Generalized enlargement is seen in Hodgkin's diseases, secondary syphilis, German measles, Still's disease, bubonic plague and the rare generalized type of tubercular adenitis, and lymphatic leukemia as well as in status lymphaticus.

Hodgkin's disease is a disease characterized by enlargement of the lymph nodes and of the spleen followed by a secondary anemia and cachexia. It was first described by Hodgkin in 1832 and, while supposed to be rare in children under three years, has been observed in out of 43 cases in children under 10 by Clement Clark.

Pathologically there is proliferation of the endothelial and reticular cells with the presence of lymphoid cells and giant cells which differ from those seen in tuberculosis (Carr).

Early blood examination is negative and the diagnosis is best made by removing a node for microscopical examination and by the presence of a negative Von Pirquet test. The glands remain discreet and non-adherent either to the skin or deeper structures which helps to distinguish the disease from tuberculosis and lymphosarcoma.

The etiology of this disease has never been accurately determined. The blood later shows lymphocytosis with increase in blood platelets and transitional leucocytes at all stages although an article published in the *Brazil Medico* August 25th, 1917, by Professor Dias of the Oswaldo Cruz Institute at Rio de Janeiro seems to bring us near to the solution of the problem.

Dias has been working on this subject for many years and the past work of this institute has been so excellent that this report can not be disregarded. The organism while pleomorphic seems to be basically a fungus which is of the blastomycete or yeast class with only rarely the formation of true mycelia. These bodies are seen in smears from sections of the glands and have been successfully grown. Their discoverer is so certain of the accuracy of his work that he has renamed Hodgkin's disease "adenomycosis." The symptoms are due to pressure as dysphagia, dyspnea, spasmodic cough, cerebral congestion, hemorrhages, with later irregular heart action, muscular atony, and great physical weakness.

Secondary Syphilis causes only relatively slight swelling of the glands roseola, and finally the Wassermann test will clinch the diagnosis.

German Measles causes general adenopathy similar to secondary lues but the presence of the measles-like rash with the involvement of

the occipital group of glands helps in diagnosis while in case of doubt the Wassermann comes to our assistance.

Still's Disease is a polyarthritis sometimes called acute rheumatoid arthritis with a secondary general glandular enlargement.

The joints involved, in order of frequency, are the carpus, phalanges, wrists, elbows, ankles, knees, hips, and the cervical spine. It often follows scarlet fever or rheumatism, and the prognosis is grave.

Bubonic Plague is almost never seen in this country and the presence of an epidemic or history of exposure to the disease together with the bacteriological examination of the glands make the diagnosis comparatively simple.

General Tuberculous Adenopathy is rare and is diagnosed by historical examination of the glands and the Von Pirquet test.

Lymphatic leukemia is common in children. There is fever as in other severe anemias with an enlargement somewhat less than in spleno-medullary leukemia. It may present the Miculicz syndrome with enlargement of the lacrymal and salivary glands.

The progress of this disease is rapid and the prognosis fatal. The leucocytosis may be moderate but the small lymphocytes are enormously relatively increased up to 90 or 98 per cent of the total white count. The red cells and the hemoglobin are away down.

Status Lymphaticus is a condition usually seen in rachitic children where there is an enlargement of the cervical axillary and bronchial groups, of the glands at the angle of the jaw, adenoids, enlargement of the tonsils both faucial and lingual, Peyer's patches, and especially of the thymus. This condition is interesting from its frequent causation of sudden death during anesthesia for some simple operation. Escherich believes that the pathological condition of the thymus causes a form of acute intoxication, with cardiac syncope and paralysis. The thymus enlargement in such cases of sudden death is usually enormous. Reich gives the absolute normal dullness of the thymus as irregularly triangular with its base formed by the line connecting the sterno-clavicular articulations, and its blunt apex at the level of the second rib, while its lateral boundaries correspond approximately to the size of the sternum.

A little more than half of the gland falls to the left side. Thymic dullness greater by a centimeter than these is pathological and even the normal dullness disappears at the fifth year. Symptoms of enlargement are principally stridor in breathing, which is increased on flexing the head, thus interfering greatly with the child's nursing especially from the breast.

There is increased dullness which is best made out by percussing with the child's head low and extended, and X-ray examination reveals an increased area of shadow.

These children require great care, as sudden death is common and one must be particularly careful in giving them an anesthetic. Marked cases of thymus enlargement show a weight of the gland even up to thirty or forty grammes, although the normal weight is six to seven grammes at birth, and three to four grammes from birth to the fifth year, when it atrophies.

LOCALIZED GLANDULAR ENLARGEMENTS.

Occipital Glands. When this group is enlarged alone, it is usually

from septic absorption from the scalp, particularly from impetigo, seborrheic dermatitis, or most common of all, pediculosis.

No child can be too clean, or too well cared for to have pediculi and the nits should be looked for in every case of this kind.

Pre-Auricular Glands become enlarged from infection of the skin of the cheek, eyelid, ear or temporal region of the scalp.

Sub-Maxillary Glands become enlarged from inflammation of the tonsils either simple or accompanying scarlet fever, rheumatism or diphtheria, as well as from carious teeth and alveolar abscess.

Cervical Glands are the most frequent seat of tuberculosis in children from three to ten years of age, while the bronchial group is commonest under three. Of 155 cases reported by Treves 149 were cervical. The general health of the child remains fairly good in spite of tuberculosis of these glands, and generalized tuberculous infection therefrom is rare.

Simple inflammation usually causes suppuration within a month with disappearance in four or five months; persistence beyond this period is usually due to tuberculosis especially from the second to the tenth year, further the Von Pirquet is of great assistance in the diagnosis. A form of epidemic cervical adenitis has been described by Kirkland of Cheltenham, England and called by some writers after him, which is associated with an angina in some cases resembling that of scarlet fever, and in others like diphtheria or rheumatic sore throat. The heart is usually affected with an aortic or mitral bruit, but, strange to say, there have never been noted any after effects.

Mumps, from its situation and the liability to confuse it with cervical adenitis, merits consideration here.

It must be remembered that, in this disease, not only may the other salivary glands be involved, but in some cases, they may be the only ones affected, while the parotid escapes. The virus is present in the saliva, and this, when injected into cats, produces the disease. Pain usually precedes the swelling, which is increased by movements of the jaw, by pressure and the presence of acid substances in the mouth. The swelling of the parotid lies between the jaw and the sterno-mastoid, and may extend upward as far as the zygoma, with the centre of the tumor at the lobe of the ear.

Of 282 cases seen by Holt 215 were bilateral.

The swelling reaches its maximum about the third day, remains stationary two or three days and then subsides.

The blood findings are characteristic, showing a reduction in the polynuclears, with an actual and relative increase in the lymphocytes whether with or without leucocytosis.

Orchitis is a rare complication in children, as is mastitis. In diagnosis, the position of the swelling helps, the rapid course with involvement of both sides, and the presence of an epidemic.

Supra-Clavicular Glands are rarely primarily involved alone, and usually an adenitis in this location means metastasis from some malignant growth in the abdomen, the secondary deposits ascending along the thoracic duct and affecting the glands close to where the duct enters the junction of the left jugular and subclavian veins.

Epithoclear Glands may be enlarged as a result of infection in the fingers, fore-arm and hand. This gland attracted considerable attention in the diagnosis of syphilis before the advent of the Wassermann reaction.

Bronchial Glands are of the greatest importance as the common seat of tuberculosis in children under three years of age.

Symptoms of enlargement of these glands are persistent spasmodic cough, sometimes cyanosis and edema of the face, which in the absence of renal disease should arouse suspicion.

Sudden fatal asphyxia may occur from the ulceration of a gland into a bronchus where it may ascend and block the trachea or larynx. As to physical signs, only large masses can be made out on percussion, showing dullness over the manubrium sterni or more frequently posteriorly, over the dorsal vertebrae from the third to the seventh. A sign of which one hears and reads a great deal in pediatric circles is that of D'Espine, which consists of bronchial breathing or whispering bronchophony below the normal limit of the seventh cervical vertebra. D'Espine is an internist of Geneva, Switzerland who first drew attention to this sign in apical pneumonia in the *Revue de Medicine* in 1887, and then in 1889 in the fourth edition of the *Manual of Picot and D'Espine*.

The first full description appeared in the *Bulletin de l'Academie de Medicine* in 1907 and the statement made therein that glands are always invaded before the lungs in children and in a considerable number of cases they remain the only thoracic localization of the tuberculosis.

D'Espine flatly contradicts Parrot's law that all tuberculosis of the bronchial glands is the consequence of a pulmonary tuberculous lesion, and says that, on the contrary, the explanation lies in the intestinal origin of such adenopathy first demonstrated by Valle at the Tuberculosis Congress in 1905, and afterwards corroborated by Calmette and others.

Morse of Boston found the sign present in only forty out of six hundred and sixty-six children seen in private practice, and concludes that it is rare in the children of the well to do. D'Espine writes as follows: "The first signs of bronchial adenopathy are furnished by the auscultation of the voice and are observed almost always in the immediate neighborhood of the vertebral column between the seventh cervical and the upper dorsal vertebrae either in the supraspinous fossa or lower down in the intra-scapular space. They consist in a timbre added to the voice which one may call whispering (*chuchotement*) in the first stage and bronchophony in a later stage." Other signs sometimes noted in these cases are Gibson's sign of dilatation of the veins over the chest and neck and shoulders, tending to converge above the sternum; and Eustace Smith's sign, a venous hum beneath the clavicle when the head is thrown back. X-ray examination reveals the presence of large glands, especially if they be calcified, and, of course, the Von Pirquet is always at hand to show the presence of tuberculosis. This skin test is greater in value the younger the child.

Axillary Glands become enlarged in children usually from septic absorption from infections on the fingers, arms, breast, shoulder and upper part of the back. Tuberculosis of this group alone is rare.

Mesenteric Glands become enlarged in acute inflammation of the bowel as colitis, dysentery, and typhoid, and, of course, in both tuberculosis of the bowel and peritoneum.

They can sometimes be palpated either externally or bimanually with a finger in the rectum.

X-ray plates will frequently show their presence when other means fail.

Inguinal Glands are enlarged from infective foci in the feet, legs, thighs, buttocks, lower part of the back, scrotum, penis, vulva and perineum.

The Breast. Acute mastitis is sometimes seen in infants and then is often due to the pernicious habit of squeezing the breast to expel the slight secretion of milk not infrequently occurring in the new born. Further it may arise from some localized skin infection over the breast.

The Spleen enlarges in a great variety of diseases, especially the leukemias, Hodgkin's disease, chronic malaria, rickets, congenital lues, etc. An enlarged spleen must be differentiated from renal tumors, perinephritic abscess, supra-renal tumors, fecal accumulation in the colon and tuberculous peritonitis.

The finding of the splenic notch is a point of great service in the diagnosis.

The Thyroid is to be mentioned only briefly as its enlargement in the form of exophthalmic goitre is rare in children under ten and almost unknown under five.

The cardinal symptoms are the same as in adult life, namely tremors, exphthalmos, and tachycardia, although the troublesome diarrhea of the adult is rarely seen.

It is three times as frequent in girls as in boys, and its course is often rapid and transient, some cases reported having lasted only a few days.

The prognosis is fairly good under complete rest and warm packs for the restlessness; drugs should be used only rarely and surgical intervention is seldom required.

The Testicle is enlarged in tuberculosis syphilis, tumors, acute urethritis and must be differentiated from hydrocele of the tunica and of the cord, and from incarcerated hernia.



MINUTE.

AT the Annual Meeting of the Associated Physicians of Long Island, held January 25th, 1919, at the Kings County Hospital, the death of an Honorary Member of the Association was noted, the

HONORABLE THEODORE ROOSEVELT.

It was Resolved, That in this sudden departure from the activities of life, the World has lost one of its most valued citizens. He was a man—true, pure and noble—an American in every thought, word and action.

He was always straight-forward in his speech, and never minced words but uttered the truth as he saw it, without regard to whom it hit. We shall miss his valuable aid in the reconstruction period of this Nation.

America has lost—the World has lost—one of its most illustrious citizens, and this Association wishes to add its sorrow for one who took a deep interest in our welfare.

Resolved, That we express to the wife and family our heartfelt sympathy. That a copy of these resolutions be sent to Mrs. Theodore Roosevelt, and that they be spread upon our minutes.

Respectfully submitted,

EDWIN S. MOORE,

WILLIAM FRANCIS CAMPBELL,

H. BEECKMAN DELATOUR,

Committee.

COUNCIL OF NATIONAL DEFENSE.

MEDICAL SECTION

Washington

The Council of National Defense authorizes the following:

Early in February each physician in the United States exclusive of those who served in the Medical Corps of the Army for the past two years and members of the Volunteer Medical Service Corps, received a communication from the Council of National Defense, requesting that he fill out and return promptly to the Washington office an accompanying questionnaire, so that there may be on file in Washington complete individual information covering the members of the profession. Simultaneously with the distribution of these questionnaires, state and county representatives of the Volunteer Medical Service Corps were instructed to urge all doctors in their communities to comply promptly with the request of the Council to fill out and forward promptly to Washington the blanks sent them; and to advise those who by any chance failed to receive blanks, to communicate with the Council of National Defense at once in order that application blanks might be furnished them.

The Volunteer Medical Service Corps was organized early in 1918 to serve the Government during the emergency of war. As this emergency has ceased to exist, active membership in the Corps is no longer solicited. However, the survey initiated by this organization last year has proved of such value as a source of information concerning the individual members of the medical profession that the Surgeons General of the Army, Navy and Public Health Service have requested the Council of National Defense to complete it so as to include every doctor in the country, in order that a permanent record of the profession may at all times be available for reference in future emergencies. Upon their completion, the records will be transferred to the Surgeon General's Library where they will be kept up to date by a force assigned for the purpose, and be accessible to all government bureaus.

Every physician is requested to cooperate with the Council of National Defense in making this record complete by returning at once the questionnaire received or by writing to the Medical Section of the Council of National Defense, Washington, D. C., and requesting that a blank be sent him if through an oversight he did not receive one.



EDITORIAL



A SCHOOL OF MASSAGE.

THE endeavor that is being made among the more progressive masseurs of the greater city to arrange a university extension course with Columbia University, in order to place the theory and practice of massage upon a higher plane, is in every way a laudable undertaking. In conjunction with other therapeutic measures massage is a most valuable means of combating a wide variety of physical disturbances. It is also capable of grave abuse in the hands of the unqualified and when unintelligently applied may completely offset the best efforts of the physician or surgeon. The cordial cooperation between the intelligent masseur and the physician offers an easy way to combat the attacks of the pick-pockets and holdup men who masquerade under the high-sounding titles of chiropractic and neuromagnetic healers, and who under such titles are clamoring for state protection to make their gains secure.

If Columbia University can add to its curriculum a course that will turn out carefully trained and well equipped masseurs, it will again demonstrate its right to be considered one of the foremost of the world's educational institutions.

It might be well if the University authorities could also consider whether special courses in the care and treatment of diseases of the feet might not properly be added in the medical school. The average practitioner of medicine is woefully ignorant and therefore utterly negligent of the proper care of the feet, and surely there is no reason why he should be content to practice hygiene, administer pills, practice surgery and yet neglect the only means by which most of his patients reach his office. The war has demonstrated how few qualified orthopedists there are, and yet the number of bunions, ingrown toe nails, corns, painful callosities and flat feet is so great as to offer a most profitable field to any physician who is willing to consider the small things and give them decent and intelligent care.

H. G. W.

ALCOHOL.

REPORTS of the Bill which the Anti-saloon League proposes to advocate before the legislature in Albany, while they are vague and do not carry the official endorsement of the League's manager are, nevertheless, sufficiently disquieting to demand that special attention be given to the subject by moderate minded people, who are unquestionably in the majority throughout the country, lest fanatic limitations to the use of alcohol shall be permitted to become law and thereby bring about such a revulsion of

feeling as to injure the cause of genuine temperance. It is doubtless true that during the last fifty years there has been a steady growth of conviction that temperance is essential. The prohibitionists represent a very modest unit in the temperance movement where temperance is based on understanding while prohibition not infrequently springs from intolerance and fanaticism. There are thousands of people the country over who are ready to accept thankfully the prohibition amendment insofar as it does away with alcohol as a beverage, not because they believe that alcohol is a curse and a menace, but because they recognize that used as a beverage by the weak and foolish it becomes a powerful lever in the hands of unscrupulous politicians to perpetuate evil and because when readily accessible to the heedless and profligate it is one of the most powerful agents in the dissemination of venereal diseases and public immorality.

So long as the extreme prohibitionists will recognize this point of view, they will command the support of the moderate majority, but the rumors now rife as to the proposed limitations in the use of alcohol outside of beverage purposes, are of such a nature as to demand that the greatest care shall be taken to prevent the infliction of burdensome and unnecessary hardships upon a wide diversity of industries. It has been stated that physicians will be denied the right to prescribe alcohol unless they previously take out a personal bond for \$2,000 to be forfeited, as we suppose, if some prohibitionist succeeds in getting a prescription that contains more than 2% alcohol. The daily press of February 6 contains a summary of the restrictions to be placed upon the use of alcohol in drugs. If the proposals detailed therein are seriously considered it is evident that every one not bereft of his senses must journey to Albany and participate in physically cramming the paper on which the bill is written down the throats of its proposers as a permanent means of choking off as dangerous a gang of bolshevikists as remain outside of smitten Russia.

If, as suggested, the amount of alcohol in drugs be limited to 2%, we are at once confronted with the problem as to what is to be done with the array of tinctures, elixirs and syrups that make up the bulk of all liquid pharmaceuticals. What becomes of the vast array of proprietaries that depend on alcohol as a solvent and a preservative? What happens to the retail druggist and the jobber and to the wholesaler? What happens to the physician, and last but not least, what happens to the consumer who may be dependent upon tincture of digitalis to keep his heart going?

We recall from our dim past a method of argument, described by Mr. Jevons in his book on logic, known as the "*Reductio ad Absurdum*." While as a conscientious practitioner of medicine, one would welcome any restriction which wiped out the nostrum business, he would hardly look with equanimity upon any law which removes eau de cologne from my lady's dressing table merely because it contains 90% of alcohol, or which banishes extract of vanilla from the kitchen for a similar reason. There are a pitiful few who intoxicate themselves with cologne and flavoring extracts, but why should the prohibitionist make it impossible to hide his own stench and make his own food without flavor? Just so surely as the fanatic attempts to embody such matters in the law with equal certainty will the law be revoked and, by the same

token, the real advance of temperance in the land will be set back not one generation, but many.

This is not a matter for persiflage, but a deep and serious problem that resolves itself into these two equations:

Prohibition plus good sense equals national benefit.

Prohibition plus radical folly equals increased drunkenness.

There is no one so inconsiderable that his vote and views do not count in the total. It is imperative that every voter of the State of New York shall place before his legislators his determination to see that a great good shall not be lost through a greater folly.

H. G. W.

IS THERE A MEDICAL TRUST IN THE UNITED STATES?

THE Medico-Legal Journal in its issue of November-December, 1918, contains a long letter by Carl Scheffel, Ph. B., M. D., entitled, "Is There a Medical Trust in the United States?" The doctor reviews the definition of what constitutes a repressive monopoly and then proceeds to show that the American Medical Association by virtue of its constitution and through such subdivisions as the Council of Pharmacy and Chemistry and the Council of Medical Education, is a repressive monopoly that prevents the propagation of free ideas, that keeps worthy young men from the privilege of medical practice by compelling prohibitive requirements in education and that endeavors to control the production of pharmaceutical products through the approval or condemnation of its Council on Drugs and Chemicals. Indeed, he more than hints that those preparations that pay high advertising rates are looked upon with favor, while those that do not are condemned.

The only reason why one should notice an effusion of this kind is that it constitutes a dangerous propaganda and is the stuff which has been instrumental in drenching Russia with its best blood. If we read the doctor's letter aright we interpret it to mean that every human being would be permitted to practice healing if he chooses to assume the responsibility for the life or death of any other human being, that he should be privileged to offer for sale, (for even the doctor will not contend that pharmaceuticals are offered to the public on a charitable basis), any nostrum that promises to bring him a profit and that the man's inclination should be the only guide and the only restraint in his dealings with the public. When the doctor claims that there is a medical trust, he is right—there is a medical trust and admittance to that trust demands that a man shall have brains enough to mingle on an equality with every other man of brains. So far as we know \$5.00 and brains is all that stands between any applicant and the right to become a participant in the great body of physicians who today stand as having offered more of their numbers to their country than any other calling, who today are recognized as having saved more of the country's youth than all other influences put together and who are known as the most self-sacrificing class of men that humanity can boast of. It is barely possible that even Dr. Scheffel might be able to scrape together the two qualifications that would make him eligible for membership in the medical trust. Possibly the doctor could borrow the \$5.00.

H. G. W.



CORRESPONDENCE



G. SHERMAN PETERKIN, M. D.

Seattle, Washington

Jan. 29, 1919.

Dr. Henry G. Webster,
Brooklyn, N. Y.

My Dear Doctor Webster:

Prior to this war various evolutionary forces, without intelligent aid or organized assistance on the part of the medical profession, gradually compelled and are still compelling the followers of medicine into:

1. Accepting the specialist.
2. Demanding hospital facilities.
3. Associating and segregating into more or less organized groups.
4. Establishing private clinics, as the Mayo Clinic and similar institutions.
5. Establishing, as just instituted by Columbia University of New York, a still more advanced form of scientific medical organization, a clinical laboratory.

The same evolutionary forces have caused the laity:

1. To form mutual benefit organizations for the sick.
2. To demand contract practice.
3. To form hospital associations.
4. To demand state aid.
5. To demand free clinics.

In every one of these vitally important politico-economic movements, and in view of the fact that millions of men will return after the war and demand for themselves and for their families the same scientific treatment they have experienced under military organization, medicine as a profession has failed to recognize the same exciting cause in each instance—an economic demand that the theoretical standard of efficiency “Medical Ethics” must be replaced by a more practical standard, “Ethical Economics.” This standard demands the application of scientific methods through economic organization to every-day life, so that efficient medical and surgical treatment will come within the reach not of the few who can receive hospital treatment in standard institutions but of every human being.

Confronted by the above politico-economic facts, a very pertinent question presents itself to the medical profession at large: What is medical organization—medical education—doing to solve these problems, at a time when an imminent reconstruction period

confronts every form of organized society including the profession of medicine?

Based on observation and experience of 20 years the writer claims that virtually nothing practical has been systematically undertaken.

Nowhere is there evidence that medical organization—medical education—has ever recognized three basic psychologic factors that govern all intelligent human acts:

1. One hundred per cent. of the representatives of medicine, physicians, are human beings, and the minds of the highest and lowest are compounded of the same elements, held subject to the same laws of action; and the knowledge that any one of them possesses comes—as it does to every other human being—through the ordinary channels of the senses.

2. In the search for knowledge in every branch of human society, including medicine, science has produced innumerable mechanical aids to increase the efficiency of the senses of man. Therefore logically, all things being equal, the mind of man gathers knowledge in proportion (a) to the number of mechanical aids employed to increase the efficiency of the senses; (b) the accuracy with which these aids are employed.

3. As a rule normal human emotions govern every human being, including the physician. Therefore, if the recompense for labor does not enable the physician to carry overhead expenses; does not give him time and funds for improvement, study, travel and necessary recreation; does not produce profit that is protection for his family and for himself in sickness and old age; he can neither give efficient scientific service nor continue to progress. If adequately recompensed he can give scientific service far more readily and is more likely to progress.

Yet in the face of these obvious evolutionary politico-economic movements and the basic psychological facts that govern intelligent human action, medical education is still demanding for every individual admitted to the study of any branch of the science and art of medicine a high standard of preparatory education, in substance a B. A. degree from a recognized educational institution.

This standard, combined with the principles of education that are employed in every medical college after admission to study is such that it can be justly claimed that the educational methods pursued tend to make the graduate physician in this work-a-day world pursue the practice of medicine as a pure science, that can isolate itself, that needs no association with the applied sciences, especially economics. For instance, medical education during all these years has apparently never conceived of the practical necessity of recognizing the psychological fact No. 1, as a pre-educational factor of utmost importance.

The United States Government, on the other hand, by the present war has been unceremoniously forced into recognizing its educational value—as evidenced by the first standard of admission to the aviation service, where the highest possible human skill is required in order to successfully destroy life. In this initial examination the most accurate possible physical and mental tests are employed in order to ascertain not only the inherent character and personality of the candidate, but more especially the acuteness, stability and durability of *every one* of his senses.

In the profession of medicine, however, where there is a demand, if it were possible, for even greater character and personality, acuteness, stability and durability of the senses—the object of the physician being to preserve life—no recognition is given to the fact that efficiency in applying abstract knowledge depends upon the efficiency, not of one but all of the special senses.

The student of medicine may be deficient in one or more of his special senses, have little tactile sensibility, a poor sense of smell or hearing, defective eyesight, little character and no personality adaptable to a physician. Yet no tests are made to ascertain or correct these defects, and the student is graduated and permitted without any organized supervision to try to preserve—where he would not on the same grounds be permitted to destroy—life.

As to the educational value of the psychological fact No. 2, there can be no question that the mechanical aids to scientific medicine (which include all laboratory methods, even history filing and compilation may be added) have become so numerous, have so developed in detail that to attain efficiency requires not general but definite technical knowledge.

There can be no question that medicine will become organized in the future, and when so organized it can be no exception to the general rule and must attain efficiency by having sub-division of labor—therefore organization of labor and equipment.

Medical education as conducted today may be ethical but it is still decidedly theoretical. Medical schools virtually only graduate officers and then only colonels. No provision is made for officers of lesser rank, for the privates in the form of technicians. For privates, we as a profession, must take the unsuccessful physician, volunteer nurse, half-trained office girls, or any kind of unskilled help available, whom each physician must train for himself after his own sweet will in order to fill the ranks of scientific medicine with privates. Yet economic organization is staring the profession in the face. With this army thus organized we guarantee to defend the public from disease—then wonder why our efforts as a profession are not appreciated!

Even the colonel, who may later wish and be willing to work for a higher rank—for instance to become a specialist—there is no institution provided where through concentration of skilled leaders, equipment, technical assistance and economic organization he can learn his specialty from A to Z, and be instructed and equipped with a modified plan of economic organization, whereby he can do justice to the public and his profession by maintaining and delivering the high standard of goods which he advertises to sell in competition with the inferior grades of the cults by attaching to his name an “M. D.”

As a profession, in most of our medical colleges, we unquestionably try to manufacture a high standard of goods, which goods must be sold in the open market to the public. We advertise to the public that the sign “M. D.” signifies the highest standard. Yet as a profession have we adopted any organized means whereby we can demonstrate to the buyers, the laity, the value of standard “A” as compared with the imitation “B,” and in so doing increase the demand for standard “A” goods, to the benefit of both producer and consumer? I think not.

The public through universal education is being taught to think, to reason, yet the medical profession today, like the cults, is asking the public to accept goods on faith without investigation; and we claim as a standard science based on reason, not wholly on faith.

If the profession of medicine will not undertake to solve these politico-economic problems for itself, it is true that evolutionary forces will solve them for us, but with brute force and a corresponding indiscriminate destruction—unless man employs the intelligence that nature has given him to anticipate evolutionary movements, through the use of intelligence scientifically applied but governed by the higher human emotions.

It is not within the limits of this letter even to outline the means to the end that experience suggests. But the old adage always proves true that where there's a will there's a way.

The object of this letter is to arouse, with your assistance, sufficient sentiment to instigate a systematic, organized movement to attain the end sought—the practical application of ethical economics; so that humanity may be efficiently served by the profession of medicine, and the profession win universal respect and attain efficiency through following out not only ethically but economically the dictates of the noblest of all the sciences.

The accompanying pamphlet is intended to prove that such a movement is feasible, for if an imperfect, experimental organization, based on a belief in principles, carried on by an individual, can apply these principles of ethical economics successfully, certainly with the intelligence of the profession concentrated towards that end there can be no question of the outcome of the many economic problems confronting the science of medicine.

Criticism of this pamphlet is invited, and the writer would appreciate notice or information of any criticism or suggestion—direct or indirect—that may be offered.

Respectfully submitted,

G. S. PETERKIN, M. D.

Society Transactions

TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, January 2nd, 1919, at 8:30 p. m.

The President, Joseph P. Murphy, M. D., in the chair.

Program.

CASE REPORTS:

1. Cases illustrating conservative foot surgery (4 cases) (4 patients).
Burr B. Mosher, M. D.

Discussed by Drs. Warren L. Duffield and James C. Kennedy.

2. Total avulsion of scalp. Patient.
3. Lobar pneumonia, complicated by Empyema.
4. Fracture of the femur. X-rays.
5. Separation of epiphysis of Humerus. X-rays.

Roger Durham, M. D.

Case 2 discussed by Dr. James M. Downey.

6. Removal of large gallstone from Ampulla of Vater (2 cases):
a. By Duodenocholedochotomy.

b. By manipulation.

7. Fracture of body of second cervical vertebra. X-rays. Patient.

Earl H. Mayne, M. D.

Case 6 discussed by Dr. William H. Rankin.

Case 7 discussed by Drs. J. Sherman Wight, James C. Kennedy, Joseph P. Murphy and Earl H. Mayne.

8. Fracture of body of Os Calcis. X-ray. Demonstration of wire banding instrument used in treatment of fractures.

Henry F. Graham, M. D.

Case 8 discussed by Dr. Joseph P. Murphy.

PAPER:

Treatment of Empyema, with demonstration of author's apparatus.
X-rays.

*Lieut. Herman B. Philip, M. C. U. S. A.,
Base Hospital, Mineola.*

Discussion by Capt. Barrett, Base Hospital, Mineola, Capt. Kissell, Base Hospital, Mineola, Drs. William H. Rankin, J. Sherman Wight, Roger Durham, Joseph P. Murphy, Lieut. Herman B. Philip, Base Hospital, Mineola, and Lieut. Lyman, Base Hospital, Mineola.

JOSEPH P. MURPHY, M. D., President.

FRANK D. JENNINGS, M. D., Secretary.

Case Illustrating Conservative Foot Surgery (Four Cases). Four Patients.

Burr B. Mosher, M. D.

I have four cases to show, in which the question of amputation of the foot or leg at some time during the course of the disease was very seriously considered. I will show the cases and the remarks that I may make in showing the cases need not go on record as they are not of any particular importance.

DR. JAMES C. KENNEDY:

"Dr. Mosher impressed upon us one thing, and that is that compound comminuted fractures of the ankle-joint or in the long bones sometimes are very, very tedious. They are conditions which require an immense amount of patience, both on the part of the patient and the doctor.

"I recall a case that I had (a trolley accident) where a man had a compound comminuted fracture of the ankle-joint and the bones thereabouts. I remember stating to him that if he was in a hurry to get away, we would amputate his foot and would be justified in doing so, and that he would be out of the hospital in perhaps two or three months, but that if he were willing to take his chances and permit us to make a fight for his foot, he might get out of the hospital in a year. He said he was willing to take the chance and it was fully a year when we got him out of the hospital, after curetting and removing dead bone and using drainage several times.

"I think those cases of Dr. Mosher are very instructive along that line."

Total Avulsion of Scalp. Patient.

Roger Durham, M. D.

The first case I wish to report this evening is a case of total avulsion of the scalp.

The history of this patient dates back to November 8th, 1917. This young woman, 30 years of age, was admitted to the Greenpoint Hospital at 4:00 o'clock in the afternoon with a history of having had a total avulsion of the scalp. While operating a revolving machine in a factory her cap caught in the machinery and her hair was drawn in with it and the scalp was slowly torn off. She did not lose consciousness, but shut off the machine and reported to her superintendent, who brought her to the Greenpoint Hospital at the time, or had her sent at once to the Greenpoint Hospital.

On arrival at the hospital examination showed that the scalp had been torn off entirely from the orbital ridges anteriorly and including part of both upper eyelids to the nape of the neck posteriorly; laterally including the greater part of the left ear and part of the right ear. The orbital fat of both eyes protruded and the eyelids fell down over the eyeballs, overhanging them. The face was denuded along the sides of the cheeks down to the middle.

On admission the temperature was normal. Pulse, 100. Respirations, 24.

She was at once dressed with a wet saline dressing and after being in the hospital for two or three days was taken to the operating room and the scalp was cleaned up under more surgical conditions.

The after course of this patient was one which was extremely tedious and required a great deal of patience, both on the part of the patient herself, especially on the part of the patient herself and on the part of those in charge of her, including the nurses.

During the days following the temperature would rise to 103 degrees in the evening and then in the morning it was subnormal, down to 97 degrees.

There was an extensive profuse sloughing and general infection of the denuded tissues.

Her head was kept continually wet with these saline dressings.

At the end of a month her temperature on one occasion rose to 105; pulse, 130; respirations, 32, but from about Christmas day, after being in the hospital for about six weeks, she began to improve, the temperature becoming nearer the normal, and on the 31st of December, a year ago, I think, the condition of the scalp had improved so much that she was taken to the operating room and prepared for some plastic operation. This was done, I think, by Dr. John E. Jennings. It was done on his service. At this time a portion of the periosteum over the sagittal suture was removed and free pus was evacuated from beneath this. There was a profuse discharge all the time. This was cleaned up, and a few fine holes were drilled into the outer table and pinch skin grafts applied to the frontal and parietal regions. These failed to take and there was no improvement in her condition. Further plastic operations and attempts at skin grafting were done on six different occasions up to May 14th, 1918. At this time the scalp was a clean granulating surface, but there was this continuous profuse discharge.

When I first saw her it seemed to me that some further attempt ought to be made to get some grafts upon the scalp, so on May 14th, under local anesthesia, we removed some Thiersch grafts from the right thigh and the first operation which I did was done according to a method described a year ago in a paper read before this Society by me, and consisted in the removing of grafts simply by the application of iodine, and on the first day we made a line of grafts which bisected this area just so (indicating with the patient) from one ear over to the other and about two or three inches apart. This was all we attempted to do. These were held in place by a single layer of gauze laid his way (indicating) and strapped down to the cheek. She was a very good patient in regard to taking care of the grafts. She would lie quietly in bed, so the drainage would be away from the grafted area, and we were successful in that first attempt. Nearly all the grafts took.

On June 4th, 1918, about three weeks later, a second time this same method was used, and on this occasion the head was divided into an anterior and posterior portion by the application of grafts, so that there were four small areas left where previously we had one. These took very well also.

Again, on June 22nd, 1918, about two weeks later, we filled in the posterior areas which were left, and during that period, while those were healing, she lay on her face and what drainage there was was carried away from this area, and on July 13th, 1918, about three weeks later, the final effort was made, and the anterior area was grafted in the same manner, and these also took.

I don't mean to imply that these all took, because there were spots that persistently failed to inform good grafts, and there are still a few where the skin is still thin with a tendency to break down, but it is gradually becoming good firm skin and the end seems to be very closely in view.

There is only one thing that may have to be done now and that is with regard to the question of shutting the upper eyelids. She cannot close the eyes at the inner canthus. The upper lids are contracted upwards, so that there is incomplete closure at the inner canthus, and I am planning to do a little plastic work on the upper eyelids in order to allow them to close completely.

Fracture of the Femur. X-Rays.

Roger Durham, M. D.

I will just briefly show these pictures which show the progress of a bad fracture of the femur in a boy or 3 or 4 years. There is the original picture. This was not a compound fracture. That is, there was some abrasion of the skin, but the bone was not exposed.

This shows the first attempt at reduction—bones approximated, but not good union. However, I think I would have been satisfied to leave that alone, because we made another attempt to improve it, and later on in the summer a plate was applied, and after a time, that is the result. The fracture, of course, is compounded now, and, in addition, there is necrosis of bone. This was taken prior to the next operative procedure. The lower end of the Lane plate is torn loose. That I removed in the fall when I came back from the country, and put on this appliance, which is a heavy iron band, with a plaster dressing, spica, including the pelvis, and leaving a window here for dressings. Considerable bone was removed on various occasions.

After that dressing was removed, there was no union, and that deformity developed.

Here we have a bad line of union, incomplete union, with a lot of excessive callus, and a piece of callus out here.

After this, the child was taken to the operating room. There is some union there. The wound had cleaned up very well and it seemed to be getting ready to heal when, under an anesthetic, we took the final step simply without breaking that soft union and brought the line to the bone into fairly good and straight alignment. The wound is now entirely healed.

(In answer to a question by one of the members as to whether there had been an open operation done in this case, Dr. Durham said none had been done and that the bone was simply bent into place.)

There is only $\frac{1}{4}$ -inch shortening in that leg. It looks a great deal worse than that.

Separation of Epiphysis. X-Rays.

Roger Durham, M. D.

I want to show one rather rare fracture.

These are the right and left shoulders of the same patient. This is the right shoulder. This boy was knocked down by an automobile and brought into the hospital with that fracture.

The question is as to whether that is a fracture of the anatomical neck or a separation of the epiphysis. I think it is more nearly a separation of the epiphysis, although it looks as if it had not exactly followed the epiphyseal line over here at the greater tuberosity. The fractured end of the head points directly out and the fractured end of the shaft points directly up. That looked as if it were going to be a bad one to do much with, but we thought that we would make an attempt, and he was brought up to the operating room and, under an anesthetic, the arm was abducted at right angles to the trunk and put up in a triangular splint made of bass wood and Buck's extension of about 6 pounds' weight in this position, so his hand was fast to his body, and, much to our surprise, the result was pretty good.

If that is a fracture of the anatomical neck, it is a pretty rare one and, of course, a separation of the epiphysis, which is more likely the case here, is not so rare.

Lobar Pneumonia—Empyema Thoracis.

Roger Durham, M. D.

R. B.; male; 30 years; U. S.; Manager Auto. Tire Company.

Admitted April 15th, 1918.

Admission history: Feeling badly for one week, as if he was getting the grip, and was weak. 24 hours ago he awoke with a sharp pain in the chest on the right side, and experienced a severe chill which was followed by fever. The pains were severe, and continuous.

Examination: The patient is a very sick, apathetic young man, of medium frame, well nourished, about 145 lbs. in weight; cheeks are slightly flushed; ali nasi move with respirations, rate 35; no cyanosis; expiratory grunt; skin moist; pupils equal, and react to light; tongue coated and moist.

Chest: Normal shape; expansion slightly lagging on right side.

Heart: Normal shape and size. Cardiac impulse rather diffuse and wavey. P. M. I. palpable and audible 4th interspace just within mammary line. Diastolic gallop rhythm. A2 minus. P2 plus.

Lungs: Right side from apex to base anteriorly percussion is hyperresonant and of tympanitic quality. Left side slight hyperresonant post. Rt. side post. is dull at apex and gradually blends into flatness at lower angle of scapula. Breath sounds are diminished above, and absent below the angle of the scapula. A few crepitant rales are occasionally heard at the level of the mid-scapular line, and whispered fremitus is absent; spoken fremitus is muffled, and tactile fremitus is diminished but not absent over the base, and no mass nor point of tenderness.

Abdomen: Soft at the costal border. Liver and spleen are not palpable; lower border of the stomach is at the level of the umbilicus.

Glands: Negative. Pulse soft and compressible. Systolic pressure 90.

Extremities: No oedema. Urine: Amber, acid, clear, sp. gr. 1024, no sugar, alb. cloud, few pus cells, hyaline and granular casts.

Blood: Leucocytes 19000, Poly. 80%, Momo. 10%, Small 10%.

Two days after admission examination of the sputum showed Pneumococcus Type 1. Temp. was running between 101, 2 and 103° pulse 110 to 120. Respirations about 30. Pressure S. 90 D. 40-60.

Diagnosis: Lobar pneumonia—right lower lobe.

100cc Type serum was given intravenously and repeated in 24 hours on the third day in the hospital or 4th of his disease. 5th day the temperature

fell to normal, and S. P. was up to 110.

On the 6th day temp. rose to 102° and the right upper lobe showed the typical signs of consolidation. The right lower lobe was still solid, and the middle lobe clear except for numerous small moist rales. The serum was again given, and at the end of two days the temperature fell again to normal.

The P. M. of the 8th day showed another rise of temperature, which reached 106° on the morning of the 9th day. Pressure S. 96 D. 45. Signs of consolidation of the middle right lobe were present. Two more doses of serum were given at twelve hour intervals, and on the tenth day (April 23rd) the temperature fell by crisis to normal, and coincidentally the signs of consolidation became less marked.

During these oscillating periods of the spread of his pneumonia the patient's heart caused some concern, with a rather low blood pressure that responded, however, fairly well to stimulation.

On the 11th day the examination was as follows: No expansion of the right chest; flatness everywhere except at extreme apex; sounds are faint and distant below scapula. Tactile fremitus not abolished. No rales.

On the 12th day an extensive serum rash appeared, and chest showed slight expansion of the right side. On the afternoon of this day the temperature began to rise and no signs of resolution could be detected, and there was marked tenderness along the right costal margin.

On the 16th day the temperature reached 103°. Pressure S. 120 D. 50, with dullness to flatness from the 8th rib down. Paracentesis thoracis was performed and 1000 C. C. of cloudy fluid was obtained at 8th interspace posterior axillary line. Examination of this fluid showed many pus cells and a pure culture of pneumococcus. Following this the temperature decreased markedly.

Examination 18th day (April 30) Rt. cheek flushed, breathing rapid and labored. Left chest negative. Right chest expands above but lags below. Percussion shows impaired resonance from apex to 7th rib, and from there down to the base becomes dull to flat, and the same ant. below 4th rib, in axilla below 6th rib. Breath sounds above are of the suppressed broncho-vesicular type, and below are diminished to absent. Heart is not displaced. Apex beat palpable and audible 5th space $9\frac{1}{2}$ c. m. to left. Abdomen: Liver dullness extends $5\frac{1}{2}$ c. m. below the costal margin in the mammary line, with tenderness over this area.

The patient was prepared for operation, and thoracotomy was done on the 18th day of the disease. Novocaine 2% was used and the 8th rib was resected at the post. axillary line, and about one gallon of straw colored, cloudy, flocculent fluid was drained away slowly by the Chapman pump, and the cavity treated by Dakin technique.

There was a rapid primary expansion of the lung, and three days later breath sounds were audible to the base. The discharge decreased and the temperature reached normal on the 23rd day. On the 28th day of disease and the tenth after operation the cavity was measured by the injection of sterile fluid, and was found to be incompletely filled by sixteen ounces of fluid. There was slow improvement in the general condition of the patient with an afternoon temperature of 100-101°. Pulse above 100. Pressure S. 100-110 D. 40-50.

On the 33rd day of disease and the 15th post op. examination was as follows: Diminished expansion of right chest from apex to base. Percussion ant. hyperresonant with tympanitic note over middle lobe. Slight dullness post. from spine of the scapula to the angle of the same and from here down more pronounced. Pulmonary resonance is, however, recognizable. Breath sounds do not show much modification ant. and lat. Post. Diminished over upper lobe, and absent from 9th space down. Voice sounds both to ear and touch are very intense over entire right chest down to base. Left lung shows all the signs of compensatory emphysema.

On the 20th day post. op. and the 38th of disease the cavity had a capacity of 11 ounces, and examination showed evidence of increasing expansion.

26th day post. op. (44 of disease) capacity measured 10 ounces, only ounce gain in six days in spite of persistent blowing of the bottles and a general gain in health. The temperature was running under 100 and the pulse from 100-120, and the respirations under thirty. Examination: right shoulder one inch lower than left. Greatly diminished expansion. Lungs are but slightly changed. Heart P. M. I. 5th interspace 7 c. m. from mid-line. Liver border is just palpable. The capacity of the cavity on the

32nd day post. op. (50th of disease) is 8 ounces. Patient's weight 120½ pounds.

37th day post op. (55th of disease) capacity 6½ ounces.

44th day post. op. (62nd of disease) capacity 5½ ounces. Weight 125 lb.

At this date the excursion of the right chest was ½ c. m. at the level of the nipple, and the left was 2½ c. m. rt. chest measured 39 c. m. and the left 43 c. m. Right superclavicular and infraclavicular fossae were very prominent, and there was present noticeably left scoliosis of spine. Percussion: rt. apex impaired and slightly tympanitic below 4th rib. Posteriorly dull to flat from spine of scapula downward. Breathing of the cogwheel type down to 4th rib and much diminished below ant. and laterally. Right post. diminished from apex down and absent at 8th space.

48th day post. op. (66th of disease) Capacity 4½ ounces.

54th day post. op. (72nd of disease) Capacity 2¾ ounces.

At this time this patient was sufficiently convalescent to leave the hospital, and at the end of nine weeks the cavity had entirely healed.

At the end of five months from the onset of the disease this patient weighed over 150 pounds, and examination of the chest revealed almost no signs of the recent disease. His health has remained good up to the present time. Expansion of the two sides equal.

I have presented this case in so much detail in the first place to show the care with which Dr. Kandt, to whose hands I referred the patient for his medical supervision, observed and conducted the treatment.

Secondly, because of the length of time expiring before the cavity closed, during which time it often seemed to those conducting the case that some surgical procedure would have to be resorted to.

Total Avulsion of Scalp. Patient.

Roger Durham, M. D.

DR. JAMES M. DOWNEY:

"I had one case of this kind, which I operated upon, about three years ago. I did not hear the report of this particular case and only saw the patient. In my case we tried to sew the scalp back into place and after about eight days the entire scalp sloughed off. It has been recommended by a good many men that the scalp be replaced, but in doing so that the outer table be punctured in several places so as to establish a circulation between the scalp and the bone itself. There have been a couple of cases reported like that which have been successful. It seems to me that the procedure is worth trying.

"In this case the method used by Dr. Durham is certainly an improvement over the one we had to use under general anesthesia, and I think it was four months before we got complete covering of the entire scalp. In the case I have in mind the result was certainly very beautiful and was very much like the one shown here tonight involving the ear."

Earl H. Mayne, M. D.

Case 1. (a) Removal of Large Gall Stone from Ampulla of Vater by Duodeno-cholelethotomy.

Mrs. K.—age 57, U. S. Widow—admitted to the Medical Service of the Coney Island Hospital January 1, 1918, remained on the Medical Service until March 1, 1918 when she was transferred to the Surgical Service.

When the patient entered the hospital she had been sick for three months, had lost thirty pounds, was jaundiced and was unable to retain but little food, suffered from pain over the pit of the stomach, which was colicky in character at times and radiated to the right shoulder blade. During the three months that she was on the Medical Service these symptoms continued; she lost an additional thirty pounds and her jaundice deepened. Every few days she would feel chilly and her temperature would rise to 101 or 102 degrees for a day or two and again fall to normal. A diagnosis was made of stone in the Common Duct with probably cancer of the Head of the Pancreas. Operation was refused

by patient until March 5, 1918. Through a right rectus incision the stomach and duodenum was found densely adherent to the gall bladder, lobe of liver and parietal peritoneum. The gall bladder was free from stones. A stone the size of an English walnut was found impacted in the lower portion of the Common Duct or Ampulla of Vater. The stone was grasped by the thumb and fingers of the left hand to steady it and to lift it forward against the anterior wall of the duodenum. An incision was then made through the anterior wall and the contents of the bowel carefully wiped away. The edges of the incised bowel were then separated and the mucous membrane over the protruding stone incised and the stone removed. Two small stones were also removed. The incision in the mucous membrane was not closed as there was no active bleeding. The incision in the anterior wall was closed by Lembert sutures. The head of the Pancreas was found to be very hard. The abdomen was closed and the patient made an uneventful recovery. She left the hospital in six weeks apparently well, having gained ten pounds. I saw and examined this patient on December 27th, 1918; she had gained forty pounds since her operation, was free from all stomach symptoms and said she was very well.

(b) Removal of Medium Size Gall Stone From Ampulla of Vater By Manipulation.

Mrs. M.—age 65, U. S. wife. This patient was pretty well until she was 50 years old. She then began to suffer from indigestion. For ten years her stomach troubled her, she then had a very severe attack which was followed by jaundice. Gall stones were diagnosed and operation advised and accepted. About 400 small stones were removed. Her symptoms disappeared for two years. Her attacks of indigestion then returned, mild and infrequent at first, growing gradually more severe. During the past six months patient has had several very severe attacks of pain and colic.

On August 18, 1918, an unusually severe attack of colic developed. On August 19 a mass as large as an orange in the gall bladder region could be palpated. On August 20 she entered the Bay Ridge Sanitarium. A high blood-pressure and chronic nephritis delayed operative measures. The patient continued to suffer with severe colic. Jaundice developed which deepened rapidly, no food could be retained. On August 23 the abdomen was opened through a long right rectus incision. The gall bladder was adherent to the abdominal wall, was small, contracted and stricture near its middle. The Common Duct was more than two inches in diameter; a gall stone the size of a hickory nut was found in the Ampulla. By careful manipulation this was pushed through into the small intestine. The Common Duct was opened and a large sound passed through into the bowel. The pancreas was very hard throughout its entire length. The Common Duct was drained and abdomen closed. In spite of all precautions pneumonia developed on the fourth day and the patient died ten days after operation.

Case 3. Fracture of Body of Second Cervical Vertebra.

Norman G. age 16. U. S. Student. On September 2, 1918, while doing stunts in bathing at Coney Island patient fell from the shoulders of a fellow bather, and struck the hard sandy beach with the back of his head or neck. He soon became unconscious and was brought in that state to the Coney Island Hospital. I was in the hospital when he arrived and saw him shortly after his arrival. He had then regained consciousness. At that time there was complete paralysis of the entire body below the neck. A marked chordee was present and patient was unable to pass his urine. It was necessary to catheterize him. Projectile vomiting occurred several times in the first few hours after the injury. X-ray pictures were taken of the entire spine from the 6th cervical down, these plates showed no evidence of fracture. The following day the vomiting had stopped, the upper left arm could be moved very slightly. The right side of the body was hyperaesthetic and the left side anaesthetic. Chordee and inability to pass urine persisted. Patient was sleeping most of the time.

More X-ray pictures were taken of the upper cervical vertebrae. These plates showed an oblique fracture through the body of the second cervical vertebra. Apparently there was no displacement. On September 4 patient's

temperature rose to 102, other symptoms remaining the same. He was then transferred to his home in Flatbush. On September 5 a plaster cast was put on, the patient could not stand and it was removed the same night and and bags placed at each side of head and neck. During the next few days slight movements in the upper arms could be made. During the third week fever developed and lasted for five days, this was due to a cystitis. At the end of the fifth week the sandbags were removed. At this time, the left leg could be moved slightly as could both arms. During the sixth week the ability to slightly distinguish between heat and cold returned in left leg. During the seventh and eighth weeks he could raise his head slightly, and right arm and leg could be moved. It was noted that the pupil of the left eye reacted very sluggishly. At this time the mental condition of the patient was most depressed. Occupational therapy was instituted with the most gratifying results. During the eleventh week the patient was lifted out of bed into a chair, massage, vibration, etc., was then begun. From that time to this patient has made rapid progress.

At present—four months after injury—there is marked weakness of the left foot and left hand; some lateral curvature of the spine, and exaggerated reflexes. Improvement in all these symptoms is steady and the patient bids fair to make a complete recovery.

About two weeks ago patient began to walk a little. He is now able to walk from one-half to one mile daily.

Fracture of Body of Second Cervical Vertebra. X-Rays. Patient.

Earl H. Mayne, M. D.

DR. JAMES C. KENNEDY:

"I had a case that had symptoms very similar to some of the symptoms that have been described in the doctor's case, but we regarded that as a case of severe hemorrhage of the cord rather than a structural damage to the cord. All the men, the physicians and surgeons, that saw the case all regarded it as a case of severe hemorrhage of the cord."

DR. J. SHERMAN WIGHT:

"In regard to the fractured spine case, I would like to ask if the doctor noted any displacement causing deformity that could be seen in the throat, in the pharynx, in the posterior wall of the pharynx."

DR. EARL H. MAYNE:

"No."

DR. J. SHERMAN WIGHT:

"That is usually the case where there is any displacement at all. Of course, the case is a very interesting one. It seems to me it furnishes material for very exhaustive study. I don't quite understand all the symptoms that were given that followed it, or were observed in the checking up of the case, but it is a very unusual recovery, I think, if the symptoms were really due to an injury to the cord."

"I was very glad to have had the opportunity of hearing the description of the case."

Removal of Large Gall Stone from Ampulla of Vater (Two Cases).

(a) By Duodenocholedochotomy. (b) By Manipulation.

Earl H. Mayne, M. D.

"The first case which Dr. Mayne reported, that of large stone of the ampulla of Vater, brings out a point which it seems to me is worth keeping in mind. There is a certain similarity between cholangitis accompanying gall stones or a large gall stone in the ampulla of Vater and acute pancreatitis. I have seen one case where the similarity was very remarkable. The doctor is to be congratulated on his result. In the case which I had and in which the stone was equally as large, I did not have the good fortune to save the patient because of sepsis of the liver."

"The cholangitis cases, of course, have a more chronic history. They have previous attacks of jaundice and generally present the story of in-

digestion and recovery, and finally go into the final attack of sepsis when the similarity between cholangitis and pancreatitis is very noteworthy."

Fracture of Body of Second Cervical Vertebra. X-Rays. Patient.

Earl H. Mayne, M. D.

DR. JOSEPH P. MURPHY:

"It might be as well to get some suggestions regarding the treatment of this particular case. Most of these cases of injuries of the spine may die of sepsis on account of bladder infection.

"Some years ago the late Dr. Murphy in his clinic said that it was unnecessary to catheterize these patients and that by manipulating the prostate through the rectum they would void spontaneously. Personally, I have attempted that many times, but with negative results.

"If any one here could tell us how we could obviate or avoid this condition of sepsis we would gain considerable information that would be of vast benefit to these patients who receive such injuries and come under our care. Has any member present got any suggestions to make as to the care of such cases?"

DR. EARL H. MAYNE:

In this case after each catheterization protargol was used in the bladder, 2 to 3 drams of a 2 per cent solution, and the patient was kept on rather large doses of urotropin pretty much all the way through. At about the third week, when he developed this temperature, I neglected to say he developed pain over the left kidney, which was rather tender, and we thought we had a pyelitis, and the urine at that time showed renal epithelium, but apparently all those symptoms have cleared up, although we were very much worried for a time.

"My own feeling is that these symptoms were produced by hemorrhage or pressure of blood on the cord. I do not believe there was very much injury to the cord itself, except pressure symptoms from bleeding."

Fracture of the Body of the Os Calcis. X-Ray.

Henry F. Graham, M. D.

We had an interesting paper by Dr. Downey on fractures of the os calcis about a month or so ago, and I just happened to have one this morning. I thought it would perhaps be of interest to show this plate.

This man fell and landed on his heel. You will notice the angle. I compared that with a normal X-ray picture of a foot and found that the angle of the normal foot went away down here. This has been strongly drawn up by the tendo achillis, and there is this large loose fragment here which is going to cause trouble when he begins to walk on it. I cut his tendo achillis and tried the method of Cotton, although it was not his original method. I took a piece of a curtain pole about one inch in diameter and wrapped a towel around it so as to make it softer, laid the foot on a sandbag and held this identical piece of curtain pole underneath the foot where that projection is and took a mallet and pounded it up and then moulded it with my hand until I had the proper position and put it up in a plaster case to hold it. It looked pretty good. I saw the patient this afternoon and he is in fairly good shape.

DR. JAMES M. DOWNEY:

"I was very much interested in that fracture, because I think it is a case where the doctor may have to perform an open operation and remove the fragment of that bone. It seems to me it is a case for that procedure.

"In regard to that loose fragment at the base of the os calcis: I had one case something similar to that and it was the only case where I had to do an open operation and removed a small fragment. If this fragment does not go back into position, I think the patient would benefit considerably by opening him up on the sole of the foot, over the os calcis, or wherever it is, and probably remove part or all of this fragment."

Dr. Henry F. Graham then exhibited a wire banding instrument for fractures which he had made from the description given by Cotton and Duff in Surgery, Gynecology and Obstetrics, Volume XXV, page 557.

He had used the instrument in several cases with success. The wire

which is the most easy to handle is ordinary iron stove pipe wire. It is strong, does not twist off readily and seems to be well tolerated by the tissues. The advantage of this method over the Parham and Martin band is that compression and its consequent weakening of the bone are limited to a very narrow area making it easier for callus to grow across the wire and increase the strength.

Paper: Treatment of Empyema, With Demonstration of Author's Apparatus. X-Rays.

Lieut. Herman B. Philip, M. C. U. S. A., Base Hospital, Mineola

CAPT. BARRETT:

"It seems almost a sacrilege to divert your attention from what Lieut. Philip has shown you this evening, but, of course, there is a side which precedes the surgical, and which is also the less trying side of this problem, other than the purely surgical. I represent the medical side. During the last three months at Camp Mills, the Base Hospital at Mineola, we saw thousands of cases of influenza (very close to 4,000, if not more) coming in.

"That was the first stage of this empyema, because every history in these cases that Lieut. Philip spoke of began primarily, every patient began primarily with an influenza, secondarily a pneumonia, and the empyema stage was the third stage of these cases; so that the diagnosis is the important factor before the treatment can be instituted, and the diagnosis of empyema is not always very easy. These cases sometimes come on very stealthily, and empyema will develop in the middle of a pneumonia before you have realized perhaps that such a thing is about to make its appearance, and, again, the empyema comes on in another group, in one-half of these cases, about the time that you are thanking heaven the patient has not developed pneumonia and is about to get well, and you decide to congratulate him on his good fortune, and when you look at him you notice he does not respond with the same enthusiasm that you do. The doctor seems to have more enthusiasm than the patient has about getting well, and on looking at the chart you find the temperature is normal, or nearly normal, that the pulse is constantly down and has become very nearly normal, and on looking further at the chart you observe that the respiration still maintains a very high level. As a matter of fact, you can walk through the ward and look at the charts and make a diagnosis in these cases. In these influenza cases the usual course is five to seven days, and if at the end of the seventh day (in some cases possibly the eighth day) the patient does not begin to recover, we may have a frank lobar pneumonia or a broncho-pneumonia. If after the pneumonia has run its course and we wait eight or more days and the condition does not clear up well, we begin to look for the second complication, the empyema, and in many instances, in one-half of the cases, it is possible to make a diagnosis of empyema by looking at the chart. You find the temperature had gone down to normal and the pulse a little faster than normal, but the respiration rate was maintained, and the patient was still short of breath and was still uncomfortable.

"The other type was more difficult to diagnose because the patient was apparently in the midst of a pneumonia and on top of that there developed empyema. There we are forced to rely more on our physical examination of the patient.

"If I were asked to give the one criterion by which we might differentiate pneumonia from empyema, or fluid in the chest, I would say it was by the absence of tactile fremitus. For one reason or another the layer of fluid between the chest wall and the lung absorbs the sound which is transmitted when the patient says 'One, two, three;' the fluid acts as a shock absorber which the bronchi and the solidified lung impart to the fluid, and tactile fremitus is lost; so we have bronchial breathing transmitted through the fluid; we have diminished voice sounds; we have whispered voice sounds transmitted with a normal respiratory murmur; we have absence of tactile fremitus, and we have dullness. Those two physical signs nearly always will help you to determine the diagnosis—flatness and absence of tactile fremitus. If the patient had pneumonia you would have increased tactile fremitus. This layer of liquid between the chest wall and lung walls it off.

"Blood examination in these cases does not help. Most of these cases are primarily cases of influenza. They have a low leukocyte count. Even with a huge lobar pneumonia the count may not go much over 16,000 or

18,000 or 20,000, which you have in the ordinary small pneumonia of the usual pneumonic type.

"The X-ray diagnosis is, of course, definite, but in general practice and where one is away from the X-ray apparatus that isn't always available.

"Then, of course, we always have the final diagnosis made possible with the needle. There we can get the fluid if it is there.

Now, having fluid, suppose we do aspirate and get a syringeful of fluid. We have dullness above from pneumonia and some dullness below from fluid. It is very difficult to estimate the amount, and it is very well to be conservative. We have a case like that now where we removed a syringeful of purulent fluid and immediately sent the patient to the Empyema Ward, where they took our word for the diagnosis and the apparatus was applied. We had only 20 c. c. more of fluid, so, for the sake of removing 44 c.c. of fluid, we had the apparatus applied. That was one of our mistakes. It is well not to jump at the conclusion that, although we have pus, that the whole chest is filled with pus, and we must follow these cases carefully and make a very careful diagnosis.

"Treatment is largely surgical and the important feature is how this surgical procedure is going to be carried out since there is pus in the chest which must be removed, and the question is how to remove the pus and do the greatest amount of good with the least amount of injury. The open method, according to the experience of every one who has studied it carefully, is now considered a very bad method, because if you have a patient with pneumonia, say, on the right side, and if you apply the open method and allow the air to enter the pleural sac, the air will compress whatever well lung there may be on that side, so that the entire lung on that side is practically thrown out of commission. It is not permitted to function, first, because of the atmospheric pressure, and, secondly, because not only is there one-half or one-third of the lung already involved, but the mediastinum is not a fixed membrane; it is perfectly flaccid, and the atmospheric pressure causes a disturbance of the respiratory function of the diseased side, so you create a great deal of change in the normal function and relationship of that side when the open method is applied.

"By this closed method we find that the time for the expansion of the lung is considerably reduced; as Lieut. Philip has shown, in three days, whereas formerly it took 8, 10 or 12 days, and the time for drainage has also been greatly reduced. Some cases drain for a long time, but, from the experience of others and from what we have seen in our own wards, the time for drainage by this method has been very largely reduced.

"The element of infection is reduced. We don't see the element of mixed infection.

"These patients are sick men, and not only is there an empyema present, but usually there is a good deal of pneumonia in these cases when they are sent to the Empyema Ward; so we are dealing with a bad set primarily.

"Then, the apparent comfort of the patient is another thing; that is, the absence of dyspnea, which is very very marked.

"We have been pleased with the results at the base hospital. The principle is absolutely correct.

"So far as the method of applying it is concerned, it may be that in a year or so Lieut. Philip may find something which will simplify it even more. The thing looks more complicated than it is. Lieut. Lyman can handle it and the nurses are trained to handle it, and what the average nurse can do any physician or surgeon can do, so they can apply it with exactly the same ease. I was a bit afraid of it when I first saw it, but as I see it now, it is very simple."

CAPT. KISSELL:

"I have nothing further to add, except to say that two of my cases were treated with that apparatus and the one thing which impressed me was the immediate relief given to the patient when the apparatus was applied, patients that one would not dare to move, they were so dyspneic, for fear it might be attended with disastrous consequences. As soon as the apparatus was applied the respiration was markedly improved. I think the patients were very grateful for the extra amount of air which they got in their lungs. I think that is something which is greatly in favor of the apparatus. I have seen rib resections done and a lot of relief afforded to the patients from evacuation of the fluid, but I never saw the very marked results which I saw after the use of this apparatus."

DR. WILLIAM H. RANKIN:

"Unquestionably, it is an ideal way of attacking the pus locked up in the pleura. I myself have never had the pleasure of using this apparatus, and I am not prepared to express an opinion, but it seems to me to be the ideal thing for drainage, if it will always drain. My difficulty has been in draining the pool of pus that in these contracted lungs is always in the base and deep in. I haven't been able at all times to withdraw the pus by the aspirator, as demonstrated by the necessity of opening the pleura and finding several ounces after using the aspirator at intervals of three or four days, so I have come to regard aspiration as very unsatisfactory because it is so very incomplete.

I have previously had more satisfaction by resecting the rib under novocain and using the Godlee, or perpendicular incision, whereby you can split the muscle and get a very much better exposure. With the rib resected you can very easily institute your Dakin Carrel antiseptic drainage, keeping the cavity washed out and sterilized and having the empyema well in a very much shorter interval of time. I like the perpendicular incision. I like to see pretty well what I am doing. I know the lung has already contracted. All the ill results that are to come from a rapid collapse of the lung have passed away. By doing the operation under novocain you have not lost your laryngeal reflexes and the patient is able to control the situation very well, and no untoward results are likely to ensue.

"I have been surprised to find the pus in these cases when it is in large quantity so deeply situated that it was out of the reach of any trocar that one might be able to insert; and I have been greatly pleased at the fact that the doctor by his vacuum has been able to withdraw the pus by a more rapid expansion of the lung.

"There was just a little question in my mind until I saw the X-ray plates.

"The apparatus is certainly ideal in every scientific point of view, and I shall take very great pleasure in trying to use it."

"I would like to ask the doctor if the normal cohesive force between the two pleural surfaces is soon restored by overcoming the positive pressure of an opening in the thorax. After all, it is the normal expansion of a lung relieved of the pressure of the fluid in the pleural cavity that obliterates the cavity in by far the greater part. The vacuum in the bottles assists somewhat by holding in the thorax, drawing up the diaphragm and enabling the negative pressure of the lung to assert itself to the fullest possible extent. The continuous free drainage for a few days shows that the inflamed and thickened viseral pleura yields but slowly. When the viseral and parietal pleura are brought in contact is the cohesive force restored as in a normal lung and thorax wall? In health this cohesive force will overcome the difference between the negative and positive pressure if the parietal pleura be opened even to a considerable extent. In a diseased pleura is the cohesive force re-established or will the lung again collapse if the apparatus should be removed or become loose?

DR. J. SHERMAN WIGHT:

"I want to say, first, that this appeals to me as a very valuable contribution to the surgery of empyema and is especially valuable in acute cases, or cases that are active. As I understand it, the doctor stated that he did not use Dakin's solution."

After Lieut. Philip indicated that the speaker was correct in his understanding, Dr. Wight went on to say:

"I cannot see any reason why it could not be instilled with this apparatus. Of course, he depends on the adherence or the adhesion of the pleural surfaces to obliterate the chest cavity, and as I followed him, it took from seven to fifteen days to bring about this adhesion, and this was determined by X-ray pictures following the expansion of the lung and must have been based too, largely on experience, because the fact that the lung had expanded might mean that the adhesion had taken place and pneumothorax disappeared.

"There is a class of cases in which it would hardly be possible to accomplish the same result with this apparatus, and those are the sub-acute or the chronic cases, those cases in which we have pockets of pus which must be broken up when you get in the cavity, and also the cases where there are large masses of fibrin, large masses of plastic lymph, which sometimes a pair of forceps are necessary to pull out and, of course, would interfere with the adhesion of these surfaces which is depended

upon to obliterate this cavity.

"I would like to ask the doctor in this connection if it wouldn't be feasible to use this apparatus after having exposed the pleural cavity by a moderate resection of the ribs in order to bring about the expansion of the lung after a reasonable instillation of Dakin's fluid to clean out this cavity, of course, depending upon whether there had been a very much thickened pleura or membrane over the lung which held the lung and in those cases has to be incised or decorticated.

"Another question I would like to ask the doctor is, has he ever had an accident in the use of this apparatus? Of course, it must have been determined in some way about the correct negative pressure. Has he ever had an accident in a lung that had been diseased or had been the site of a necrotic condition and lung abscess where it was about ready to break through a bronchus?

"I want to congratulate him on the apparatus and if he would be kind enough to answer those questions, I would express my pleasure at having had the opportunity of being here and listening to the paper."

DR. ROGER DURHAM:

"In the treatment of empyema at the Greenpoint Hospital we have made it a habit to have a thorough aspiration of the chest cavity previous to the thoracotomy. Over there we use entirely rib resection in the treatment, and there is one point which makes the operation a clean one which we have used, and that is either the use of a large glass syringe, to draw off the pus slowly at the time, or rib resection, or what works even better, the use of the Chapman pump, which will draw the pus off slowly into the bottle, in those cases where we have blocking by the large portions of fibrin."

DR. JOSEPH P. MURPHY:

"As I understand it, the pus is formed in the pleural cavity by an exudate from the pleura. When I was a student Delafield used to teach that in the child the pathology was quite different from that in the adult; that the prognosis in the child, after the evacuation of the pus, was invariably good, whereas it was decidedly problematical in the adult, because there was a different kind of an interstitial inflammation in the chest wall, and he used to like to cite his own cases particularly.

"Now, in those cases which the doctor has shown on the screen does the mere fact that the lung is brought down to fill this cavity which had been occupied by pus and the pus had come from an inflamed pleura, does that mean that the pleura becomes resolved, as it were, almost immediately, or that the pressure of the lung by coming down expedites the resolution? That is one of the things I would like to get information on from the Lieutenant."

LIEUT. HERMAN B. PHILIP:

"I consider that this is not a method of treatment by aspiration, but rather by intercostal drainage with maintenance of continuous negative pressure. This cannula measures $\frac{1}{4}$ -inch at the orifice and in our experience we have been able to take care of all clots, no matter how big they have been. It would surprise you to look in the bottles of some of these cases and find the large fibropurulent clots or masses that will go through this cannula. Moreover, in our experience here and in my experience in civil work (12 cases in all) there have been no failures to effect a complete cure. That makes a total of about 25 cases. Of course, to make flat out-and-out statements it is necessary to have a series of several hundred cases, which I hope to have very soon, and I have some co-workers and information coming from various sources.

"I feel that this is not a real continuous aspiration, but a real continuous negative pressure accomplished by a fairly large orifice.

"If one does rib resection, one must not lose sight of the fact that after a short time the only drainage is through the two or three largest sized rubber tubes which it is possible to use. Of course, they may be removed from time to time and cleansed and replaced. Here it is the orifice of the cannula that does the drainage. As for the real thick pus being taken care of, I covered that just now. I have in storage some pus taken, rather large cakes, flakes of pus, accumulated in a little bottle, in a preservative, as removed through the cannula. If you could see that you could not conceive that it went through the cannula.

"As for getting rid of large fibrin masses, it is conceded by most pathologists, if secondary infection into the pleura has not occurred, these large fibrous masses undergo autolysis and will be taken care of

by a small cannula. L. Emmett Holt, the specialist in children's diseases, stated that fact to me personally, that these large fibropurulent masses undergo autolysis and will be finally taken care of and discharged through a very small orifice in the chest.

"As regards the matter of using irrigations of Dakin's solution, I would say that we can very well rig up a Y-shaped tube in this apparatus and allow for irrigations with Dakin's solution, or, rather, stimulating solutions, if necessary, and still maintain the negative pressure. I think that if you exclude secondary infection, there is no need for Dakin's solution. It is not needed where there is a large dead space which is secreting pus, and if you can keep the lung expanded from the start and maintain negative pressure and exclude secondary infection, you do not get a condition which calls for Dakin's solution. None of the cases which we have had in this series and none of the cases which I have had in civil work have had Dakin's solution administered. All the cures have been effected in three weeks' time.

"I regret that this meeting was held at a time when we did not have a large number of cases to report on which were treated by this apparatus. We must admit that there are exceptional cases where the apparatus cannot be applied." In this connection the doctor reported a case in this series where after two attempts they were unable to apply the apparatus. The patient had a localized empyema exceedingly high up in the axilla and on the two occasions when they attempted to apply the apparatus there was such a contraction of the muscles of the anterior and posterior axilla that they were unable to loosen them up so as to introduce the apparatus sufficiently deep to effect drainage. Continuing his report of this case, the doctor went on to say: "If we can keep this patient long enough so that we can have a cannula made of the necessary length I feel we will be able to take care of him. This cannula here allows for a 2-inch thickness of the chest wall. I think that a 2½-inch thickness will take care of this man. He has been up and around the ward since the condition was detected.

"As to the use of the apparatus to expand a contracted lung after chronic empyema had set in for some time; this can be done, but we have often heard the old saying 'An ounce of prevention is worth a pound of cure.' Why not start originally along the right path, establish negative pressure and keep the lung expanded? There is a diseased condition of the pleurae and they probably are not receptive at the start for coaptation and adhesions, but if we keep the lung fully expanded and exclude secondary infection, they do become receptive, in our experience, and do adhere. In none of the cases where we have removed the apparatus after applying it have we been able to demonstrate a pneumothorax. We did have two small pneumothoraces, which existed for some time, at about the third interspace, where the cannula was dislodged by restless patients. They were seriously grave cases. I quoted those to you. One was a complication of a pulmonary abscess, and the other was a severe pneumonia, the patients being extremely toxic and restless, and in these two cases no harm was done because the X-ray showed that the lung was adherent after a week, almost in its entirety, and the physical findings showed it. We do not anticipate very much trouble from the small pneumothoraxes. The apparatus has been put back and the patients have shown improvement.

"The cohesive surfaces of diseased pleurae, we have, I believe, covered."

"We have had a couple of cases treated by rib resection which we are treating now, and there are other cases which we expect to treat, which show a very slow tendency to obliterate their dead space, and we are allowing the orifice to close, or nearly close, up, and as soon as they get small enough we expect to put the apparatus in and complete the cure."

DR. J. SHERMAN WIGHT:

"Will the doctor tell us about the case with the pneumothorax where the tube slipped by the patient moving in bed, if he got any mixed infection in that case where the air was allowed to get in?"

LIEUT. HERMAN B. PHILIP:

"There were two cases in which the cannula was dislodged. The first case, which was one of pneumonia, occurred on the fifth day. At that time we left the machine off and X-rayed the patient, with the result that we found there was a considerable sacculation in the thorax, extending to about the third interspace, in the peripheral portion of the chest. The other case, which was dislodged on the eighth day, showed a somewhat similar condition.

"After the apparatus has been applied, it takes a mighty delirious patient to remove it. It is highly improbable that the apparatus would be loosened within four or five days, and in that time the lung had been expanded sufficiently so that a temporary pneumothorax, limited as it is by adhesions, does no harm."

DR. J. SHERMAN WIGHT:

"Have you any data from which you can conclude that mixed infection follows the entrance of air in these cases? In other words, I would like to know if you have a case in which the cannula has been changed and you found that it allowed air to get in at the time you changed the cannula and re-inserted it. Have you had any cases showing mixed infection under these conditions to compare them with those cases which remained closed from the start to the finish?"

LIEUT. HERMAN B. PHILIP:

"We haven't had any untoward results at all with the apparatus, absolutely none. We have had no secondary infections in those cases. The apparatus is re-applied immediately under sterile conditions. It is simply this: the apparatus is re-applied to obliterate the smaller empyemas just as it is originally done under the same conditions."

DR. J. SHERMAN WIGHT:

"Who is your instrument man?"

LIEUT. HERMAN B. PHILIP:

"The Hospital Supply Co., 53-5th Avenue.

"I feel that the avoidance of the dead space is the important thing, and I think it is all a question of prophylaxis rather than prolonged treatment. I believe if the patient is given a chance to expand the lung originally and secondary infection is excluded that that is the point, and in this way the question of a prolonged septic condition with drainage, irrigations, etc., will be unnecessary."

DR. J. SHERMAN WIGHT:

"Did you ever have an accident from a gangrenous rupture?"

LIEUT. HERMAN B. PHILIP:

"I mentioned one in the paper. It was something like this. I also read the history. The patient was admitted for influenza, complicated by pneumonia. Then empyema developed. Then he developed the signs and symptoms of lung abscess on the same side. This case was treated by intercostal drainage and not by the apparatus, but we did use the apparatus later. I shall continue with the history. It will be instructive. When the pleural sac was irrigated with Dakin's solution, there was no question of the patients having a ruptured bronchus from a lung abscess. He was treated by intercostal drainage. The sinus closed about the fortieth day, and to all appearance he was pretty nearly well. Under the X-ray a complete pneumothorax was found on that side. Nature turned the trick and probably saved his life. There was a collapse of the lung and during this period the lung had an opportunity to get well. We allowed three weeks to elapse and then put the apparatus on to expand the lung and found that when we created a vacuum in the bottle it immediately filled up, so we concluded that he evidently had a ruptured bronchus from the abscess which was not completely healed. Moreover, if we held that patient's mouth and nose shut entirely, we could have maintained our negative pressure very satisfactorily. We removed the apparatus immediately. The lung is in no condition to have it expanded yet. We are going to give him about a month's more rest. If nature doesn't do the trick, we are going to apply the apparatus."

"We have a case on the opposite side. He is making a satisfactory recovery. He has had a small pneumothorax. He was one of the cases which didn't have a completely-expanded lung after one week."

DR. WILLIAM H. RANKIN:

"I would like to ask if in the case where Dakin's solution was used in the cavity there was any embarrassment in breathing. I had such a patient and used some of the dichloramine-T and the patient had a jolly good strangling spell for a few minutes. I didn't use much of it, and it was a good thing I didn't, for if I had, I don't know what would have happened."

LIEUT. LYMAN:

"I used Dakin's solution only twice on this patient. The first day he had a severe coughing spell which lasted for about five minutes. Then we thought we would try it again the second day, only to meet with the same experience. He had no signs of any physical change on the opposite side."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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FEBRUARY 1919

4 PAGES

EQUILIBRIUM AND VERTIGO.

EQUILIBRIUM AND VERTIGO. By Isaac H. Jones, M. A., M. D., With an analysis of Pathologic Cases by Lewis Fisher, M. D., Phila. and London, J. B. Lippincott Company, 1918. 444 pages, with 130 Illustrations. 8vo. Cloth, \$5.00.

This work is a demonstration of the results of the new methods of examination of the internal ear. These are of value not alone to the otologist, but also to the internist, the syphilographer, the neurologist and the general surgeon. For determining the hearing function of the ear, i.e. the function of the cochlea the otologist has had satisfactory tests previously. But the tests of the inner ear by means of the turning test, the caloric reaction and stimulation by the galvanic current is ascertained, the functional activity of the membranous labyrinth, that is to say, the utricle, sacculle and membranous semicircular canals.

When with the ordinary tests we ascertain a loss or impairment of the cochlea, that is, what we are accustomed to term an inner-ear lesion, or eighth nerve derangement, and with the newer tests find an involvement of the membranous labyrinth as well, we may be practically certain that we are dealing with a lesion limited to the ear. With these means of testing the ear and especially because with it impulses may be transmitted through the ear to the higher centres, the otologist can obtain information by means of which tumors and other lesions within the brain lying in the track of fibres from the eighth cranial to nuclei in the pons, medulla, cerebellum and cerebrum, may be differentiated from ear lesions.

The tests for distinguishing normal from abnormal functionation of the membranous labyrinth which the authors seeks to elucidate are those originated by the Vienna school, elaborated by others, among the latter being included not a few American investigators. The reactions of the patient as to nystagmus, vertigo, past-pointing and falling, on application of the tests, are the chief means of obtaining data regarding the

membranous labyrinth, its nerves and their controlling centres in the central nervous system. The tests applied, in brief, are (1) turning the patient in a turning-chair, (2) douching the ear with hot (110 F.) or cold (86 F.) water, and (3) the use of the galvanic current. Emphasis is placed by the authors on the general recognition of two additional senses besides the five already attributed to humans; namely the muscle-sense and the kinetic-static sense, the latter being the automatic and unconsciously performed function of equilibration.

Vertigo is always to be referred to the ears. The cause, it is true, may arise from local infections or irritations other than in the ear itself, but it is the irritation of the membranous labyrinth which causes the vertigo. In all cases the ear should be examined. If the internal ear responds normally to the tests of turning and irrigation, the source of focal infection is to be sought for elsewhere, but in these routine examinations of the internal ear, the responses will occasionally be such that disease of the brain may be disclosed. Lesions of the cerebello-pontile region have been found a frequent brain involvement determined by these tests. Among some of the causes of local infection causing vertigo, as related by the authors, is a diseased condition of the tonsils or teeth.

Seasickness is explained by the authors as a confusion of the higher nerve centres by the contradictory, changing and unusual impulses from the membranous labyrinth. Finally the sufferer learns to interpret these changing impulses and seasickness—the reaction of that especial set of impulses—ceases. It is suggested by the authors that prophylactic treatment of seasickness might be given by the use of the turning chair or douching, carried nearly to the point of tolerance.

Syphilis of the nervous system may be confirmed by tests of the membranous labyrinth. A strong plea is made for the early testing of the labyrinths in syphilis. Not only is the eighth nerve specially vulnerable to this disease, but its early involvement has been repeatedly noted by syphilo-

graphers, as determined by loss of bone conduction associated with diminished hearing. The authors place reliance on the turning test as of great diagnostic value in its early stages. Thus if a diminution of the time during which nystagmus is experienced normally after turning, is found, it is a positive indication of syphilis, all other causes, like mumps and various fevers being excluded. If on the 10th and 14th day after the initial lesion, for example, the turning test were applied, a patient might give a nystagmus response lasting but 14 and 10 seconds respectively, instead of the normal 26 seconds. This evidence of a progressive lesion of the membranous labyrinth, even in the absence of other tests, other causes being excluded, would be strongly suggestive of syphilis.

Regarding the light shed on intracranial lesions by examination of the membranous labyrinth by the turning and douching tests, the authors first give lists of the findings which in general favor a diagnosis of ear disease and also those favoring a diagnosis of brain lesions. Of the former, the most important is that of coincident impairment of the hearing function and of the function of equilibration. If the tests show an impairment of hearing due to a lesion of the inner ear (cochlea), and tests for determining the activity of the semicircular canals show impairment also, the examiner assumes that the case is a peripheral (inner ear), and not a central (brain), lesion. When a reverse condition obtains, namely, normal internal-ear hearing with abnormal response to tests of the semicircular canals a brain lesion is suspected. Likewise with any lack of normal response from any one or two semicircular canals, while at the same time the other or others respond normally, the presumption is in favor of a brain lesion. Also with normal vertigo (in response to tests) associated with deficient (subnormal reaction to tests) nystagmus from one or given set of semicircular canals, or with normal vertigo and nystagmus but lack of normal past-pointing or direction of falling, it is proper to assume that the brain and not the inner ear is the diseased area. Furthermore, certain ear-eye symptoms are pathognomonic of central nerve lesions. Thus a *spontaneous* vertical nystagmus; also a reverse-of-normal or irregular nystagmus, developed as the result of tests, or a conjugate deviation of the eyes on stimulation of the semicircular canals, are all positive indications of brain lesion. The tests of turning, douching and galvanism applied to the semicircular canals have this advantage, that the examiner by their means in sending impulses through the eighth nerve to the central nervous system which result in responses in various other parts of the body. The course of eighth nerve fibres from the horizontal semicircular canals and those from the closely

related vertical semicircular canals diverge after entering the medulla. Furthermore, the vestibulo-ocular impulses causing nystagmus, and the vestibulo-cerebellar-cerebral impulses producing vertigo, pursue different pathways. Therefore with a normal reaction for nystagmus and at the same time failure in reaction for vertigo, the lesion may be excluded from certain areas, and its general position in the central nervous system indicated. Furthermore, the fact demonstrated by Randall of Philadelphia, that impulses from the vertical canals and those from the horizontal semicircular canal are carried along different pathway, gives still further possibilities of making the location of certain lesions accurate. From these differential possibilities assistance has been rendered in locating lesions in the cerebellum, pons, medulla and parts of the cerebrum.

Chapters on the anatomy, physiology, modes of testing and histories of pathological cases follow, much of the matter on the analysis of cases being of the greatest interest and importance, and stimulating to the student of this comparatively late development in the examination and diagnosis of disorders of the membranous labyrinth, the eighth nerve and its pathways within the brain.

WILLIAM C. BRAISLIN.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE,

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. Macleod, M. B. Assisted by Roy G. Pearce, B. A., M. D., and by others. St. Louis, C. V. Mosby Company, 1918. 903 pages, with 233 illustrations, including 11 plates in colors. 8vo. Cloth, \$7.50.

Largely through the progress in physical chemistry, especially colloidal chemistry that has been made in recent years, both physiology and biochemistry have made rapid advances, and these advances have been reflected in what is known as modern medicine.

The distinctiveness of this book is implied in the title. Modern physiology and modern biochemistry are correlated with practical medicine. In his preface the author states that the work is not intended as a substitute for the conventional textbooks in physiology, biochemistry, or functional pathology. It is supplementary to such volumes. It will help the beginner in clinical studies to apply the scientific knowledge acquired in the physiological and biochemical laboratories in the study of disease. And it will likewise serve as an excellent review for physicians who may wish to interpret diseased conditions from a physiological standpoint.

The principal topics discussed in the text are as follows: the physicochemical basis of physiological processes; the circulating fluids; circulation of blood; respiration; digestion; the excretion of urine; metabolism; the endocrine organs; the central nervous system.

Under the first topic the fundamental physical and chemical data and laws which explain the workings of living matter are clearly presented, and in the subsequent pages these data are freely used in the interpretation of physiological phenomena.

The role played by hormones in physiological processes is another strong point in this work. One finds an excellent discussion of the hormone control of the vasomotor center, of the respiratory center, of the digestive glands, and of the various metabolic activities.

The author's presentation of metabolism and the circulation of blood are especially instructive so, altogether the book has unusual merits, and every medical student and physician will find it to be a text well worth having in his library.

It is only fair to add that some of the chapters have been written by Dr. R. G. Pearce.

MATTHEW STEEL.

MENTAL DISEASES.

MENTAL DISEASES. A Handbook Dealing with Diagnosis and Classification. By Walter Vose Gulick, 1918. 142 pages. Illustrated. 8vo. Cloth, \$2.00.

A little book of 135 pages dealing with the "diagnosis and classification of mental disorders." So far as classification is concerned, the work is excellent, as it is one compiled by a committee of the American Medico-Psychological Association, but so far as diagnosis is concerned, its utility is doubtful, because mental diseases will not adapt themselves to the compend method of treatment. Psychiatry has, unfortunately, almost no pathology upon which to base a classification, hence it is compelled to fall back on symptomatology; all its disease entities are symptom-complexes which require much in the way of explanation and elaboration so when an author attempts to describe a condition such as involution melancholia in 50 lines of large type, where Tanzi has found it necessary to employ 17 pages and Kraepelin 28 pages for the same purpose, the difficulties in the way of making the subject intelligible to the general practitioner for whom the work is primarily designed, will at once become apparent. The little work is gotten up in very neat form, is well printed though not well edited, and is profusely illustrated.

CLINICAL MEDICINE FOR NURSES.

CLINICAL MEDICINE FOR NURSES. By Paul H. Ringer, A. B., M. D. Philadelphia, F. A. Davis Company, 1918. 286 pages. Illustrated. 12mo. Cloth, \$2.00.

This is a reproduction in book form of the substance of lectures at the Asheville Mission Hospital, Asheville, N. C.

There are preliminary chapters on fever, food and nutrition and the circulation, and then come thirty chapters on the various medical diseases, and the text is concluded by a short discussion of immunity.

There is appended a glossary of medical terms which is a very important feature, inasmuch as a lecturer on medical subjects to nurses never really knows what terms are understood by his hearers and the same applies to written lectures.

While the etiology, pathology and symptomatology of the various diseases are touched upon, the treatment is gone into more thoroughly, as is proper in a nurses' textbook while medicinal measures are merely mentioned as to be carried out under the attending physician's direction.

While somewhat of an experiment, and apparently the first book of this exact nature published it can undoubtedly be read by a student nurse with interest and benefit.

W. H. DONNELLY.

INFORMATION FOR THE TUBERCULOUS.

INFORMATION FOR THE TUBERCULOUS. By F. W. Wittich, A. M., M. D. 150 pp. St. Louis, C. V. Mosby Co., 12mo. Price \$1.00.

This excellent book answers the questions which are constantly asked by tuberculous patients. The author had tuberculosis, and so has been close to the patient and understands what information is wanted.

This work can be read with great profit by the physician as well as patient. The author has had a long experience as resident physician in tuberculosis sanatoria.

Some of the important points brought out are: the tubercule bacillus; etiology, prophylaxis, pathology, and secondary infection; early infection in childhood; dormancy to adult life; then the breakdown.

The author radiates sunshine, optimism, hopefulness, courage, and a favorable prognosis in early cases.

He discusses disinfection and rest as the most important element in the cure. Fatigue, he states, kills consumptives, and causes relapses,

Sleeping on the side of heavy infection limits motion and favors healing. Exercise is wisely discussed and supervision by the physician is strongly advised. Diet is carefully discussed, as also the bad results of over eating.

The seriousness of a case depends more upon general symptoms than upon the character of the lesion. An early hemorrhage may be life saving by drawing prompt attention to the lung trouble, so that treatment may be started at once.

There is no drug as yet, which cures tuberculosis. The sanitarium is the best place to take treatment.

75% of incipient, 40% of moderately advanced, and 20% of advanced cases are living and well 5 years after discharge. 45% of men of military age react to tuberculin.

MOSES KAHN.

FIRST AID MANUAL.

JOHNSON'S STANDARD FIRST AID MANUAL.

Suggestions for Prompt Aid to the Injured in Accidents and Emergencies. Edited by Fred. B. Kilmer in collaboration with Eminent Surgeons, First Aid Authorities and Specialists. Eighth Edition Revised. 143 pp. Illustrated. 8vo. Published by Johnson & Johnson, New Brunswick, N. J. 1918. Cloth, 50 cents.

This is the eighth edition of this well known work on first aid. It has been thoroughly revised and brought up to date.

The absence of technical terms and the simplicity of methods outlined, makes it an extremely valuable work for the laity, or for any one who might be called upon to render first aid.

Physicians have always found the work valuable and the eighth edition will increase their regard for it.

A copy of this work should be in the libraries of the high schools, training schools for nurses and life saving stations.

J. M. W.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column, we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

SURGICAL TREATMENT. A Practical Treatise on the Therapy of Surgical Diseases for the Use of Practitioners and Students of Surgery. By James Peter Warbasse, M. D. In three volumes. Volume 2. Philadelphia and London, W. B. Saunders Company, 1918. 829 pp. 761 Illustrations. 8vo. Cloth, \$30.00 per set.

AUTOTHERAPY. By Charles H. Duncan, M. D. Published by Dr. Charles H. Duncan, 2612 Broadway, New York City. 361 pp. 12mo. Cloth, \$5.00.

A MANUAL OF GYNECOLOGY. By John Cooke Hirst, M. D. Phila. and London, W. B. Saunders Company, 1918. 466 pp. 175 Illustrations. 12mo. Cloth, \$2.50.

A MANUAL OF DISEASES OF THE NOSE, THROAT, AND EAR. By E. B. Gleason, M. D., LL. D. Fourth Edition, thoroughly revised. Phila. and London, W. B. Saunders Company, 1918. 616 pp. 212 Illustrations. 12mo. Cloth, \$3.00.

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph. D. Sixth Edition. Phila. and London, W. B. Saunders Company, 1918. 691 pp. Illustrated. 8vo. Cloth, \$3.75.

A TEXT-BOOK OF PHYSIOLOGY FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph. D., M. D., Sc. D., LL. D. Seventh Edition. Phila. and London, W. B. Saunders Company, 1918. 1059 pp. Illustrated. Plates. 8vo. Cloth, \$5.00.

PATHOLOGICAL TECHNIQUE. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank Burr Mallory, A. M., M. D. and James Homer Wright, A. M., M. D., S. D. Seventh Edition, revised and enlarged. Phila. and London, W. B. Saunders Company, 1918. 555 pp. 181 Illustrations. 8vo. Cloth, \$3.75.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A. M., M. D. Third Edition, thoroughly revised. Phila. and London, W. B. Saunders Company, 1918. 1089 pp. 949 Illustrations, 187 of them in colors. Large 8vo. Cloth, \$8.50.

LONG ISLAND MEDICAL JOURNAL

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NO. 4.

TOBACCO AND TOBACCO AMBLYOPIA.

P. Chalmers Jameson, M. D.

Brooklyn, New York.

"DOES smoking injure me and is it harmful to my eyes?"

This question is so frequently asked the oculist by the layman, that I venture to review the interesting evidence for and against the use of tobacco with the idea of obtaining a more general understanding on the subject. The anti-tobacconist digs into materia-medica and finds the statement that "tobacco is one of the most powerful and rapid poisons known," whereupon he takes this as his text and forgets all the other beneficial qualities of the drug. He accumulates data which tends to prove only his point, and therefore strikes no balance. He is biased on the toxic side of the question, does not weigh the evidence as to the balance between its good and bad influence on body and mind, will not admit that there is a good influence, refuses to consider evidence and frequently commits his reasoning altogether to its deleterious qualities. He does not consider whether a wise providence has bestowed this weed as a means of combating certain humors of the mind and of the nervous system. And contra-wise, the addict who uses it to excess may not give sufficient heed to the toxic and deleterious aspect.

According to Wilcox, the chief constituent in tobacco is of course nicotine, varying from $\frac{1}{2}\%$ as found in Turkish tobacco to a maximum of 11%. Nicotine is decomposed by heat, consequently the smoke contains little of the poison, but consists of various pyridine compounds as Paridine, Picoline, Lulidine, Collidine, Paroline, Coridine, Rubidine, small quantities of Hydrocyanic and Acetic Acids, Creosote, Sulphur and Carbon compounds. Nicotine is a mild antiseptic. It is also an emetic and in minute doses of $\frac{1}{7}$ of a grain, will produce nausea followed by vomiting and purging. This is followed by extreme collapse, a rapid feeble pulse, intense muscular weakness, labored respiration, partial loss of consciousness and occasional convulsions. A dose of nicotine has been known to kill in three minutes, but usually in both man and beast a certain tolerance to its use is established. It disintegrates the red corpuscles of

freshly drawn blood, but has no effect upon fresh blood. However, the spectrum of haemoglobin is altered showing that the corpuscles must in some way be affected. The rapid, running, feeble pulse denotes some part of the cardiac apparatus is powerfully influenced. The blood pressure falls rapidly, respiration is accelerated and deepened and ultimately paralyzed. The higher faculties are depressed by large doses of nicotine and the functions of the motor system are entirely abolished. Nicotine is eliminated partly by the lungs, but chiefly in the urinary secretions."

Such a picture of the toxic dose is always the text of the rabid anti-tobacconist and we regret that most writers on *Materia Medica* do not discuss in detail the possible beneficial aspect of the drug, or at best dismiss it with a few words. The odor, the taste, the peace, the calm of mind, the agreeable stimulation of the higher centres, the feeling of well being and good fellowship, the solace in time of distress and strain and the pleasing reminiscences produced thereby are not dwelt upon to any great extent. Nor is there sufficient emphasis on one striking phase, recognized from the time of the discovery of tobacco, the singular absence of demoralization in a drug of such potency. Thomas Harriot, the historian of England's first colony in the new world, after his visit to the Indies says, "We ourselves during the time we were there used to smoke after their manner, as did we also after we returned home, found many rare and wonderful experiences of the benefits thereof, of which the relation would require a volume by itself." Possibly enthusiastic smokers should more carefully tabulate their experiences. There is no analysis written of the odor, taste, and palate sense of various tobaccos, although every smoker will admit that this is a great source of enjoyment to him. Perhaps these impressions differ so much that there would be much variance. I am sure they do in the matter of odor and palate sense. One realizes this by the varieties which some smokers can consume. There must be different susceptibilities for one feels sure from interrogation that some sensitive nervous systems experience joys in sensation and stimulation that are foreign to the more plethoric and stoical. Moreover, as one writer has said, "when the whole world smokes there must be some justification" and if we can't find it in the *Materia Medica* we must be unbiased, seek certain experiences, as recorded by early and modern writers in order to draw well balanced conclusions.

We hear so much about the injury to the young; as it undoubtedly is, that it is a surprise to learn that in the early seventeenth century it was regarded a necessity to their health. Children going to school carried a pipe of tobacco with their books, which their mothers took care to fill every morning. At times during the session the books were laid aside and the pipes were lighted, the master smoking with them, thus getting them used to the weed from youth, as a practice absolutely necessary for a man's health. At the time of the plague in London it was highly recommended. It was commonly reported that tobacconists or their households were not afflicted with the plague so every one smoked. Boys at Eton had to smoke every morning and were whipped if they did not. It was sup-

posed to have wonderful healing powers. The early Spanish physicians administered it by inhalation and when intoxicated a cure was supposed to be effected. It was frequently used on wounds and in remote regions in the back-woods it is used for the purpose today. Robinson Crusoe states that the Brazilian "took no physic, but used tobacco for all distempers." He himself said "when ill he took a dose of rum and tobacco and when he awoke he found himself exceedingly refreshed, and his spirits lively and cheerful." The Indians looked upon it as a gift of God, a most precious gift of the Great Spirit who created them and who ruled over their daily lives. He it was who taught them the peace inspiring virtues of the plant. Thomas Harriot who has been quoted previously, says they used it as a powder, "the leaves thereof being dried and crushed small, they take the fumes and smoke thereof by sucking it through pipes made of clay into their stomach and head, from whence it purgeth superfluous humors, and it operates all the pores and passages of the body by which means the use thereof preserveth the body in health and they know not any grievous diseases where-withal people in England were oftentimes affected." He adds "the use of it, by men and women of great calling as else, and many learned physicians, bore testimony to its exceeding good qualities as a healer of the sick and a comfort in adversity." We will discuss its toxicity later, but for a few minutes I should like to dwell also on the testimony as to the blessing it confers upon humanity, the side of the question too often overlooked:

"The weed whose quiet spirit lulls the laboring brain
Lures back to thought the flights of vacant mirth,
Consoles the mourner, soothes the couch of pain,
And breathes contentment round the humble hearth."

If tobacco does this for suffering and overworked humanity without demoralization following its use, there must be some moral and therapeutic justification. And certainly the evidence points to the fact that it does not demoralize. It has been used now for three centuries by those in every walk of life who demonstrate that their intellectual faculties have not been impaired and who retain their sense of righteousness, justice, morality and integrity to the end. To the tea and coffee drinkers who oppose tobacco on moral grounds it can be said that if their favorite form of stimulation was used as frequently and continuously as tobacco is, they would be much more injurious than tobacco. As proof of this I would refer to the physical ravages tea has produced or did produce in the Shetland Islands twenty years ago. If they—(tea and coffee)—have earned for themselves the reputation of "beverages which cheer but do not inebriate" tobacco surely deserves the appellation of the habit which calms but does not demoralize.

Thomas Carlyle pays tribute to tobacco thus, "Ah, tobacco, it is one of the greatest benefits that ever came to the human race. Nobody ever came near me whose talk was half as good as silence with my pipe." Doctor Karr, the Cambridge Greek and theological scholar of Trinity was a lover of tobacco and as to its effect upon the learned Doctor, is witnessed by his physician, Doctor John Johnstone, who quaintly states that "tobacco acted upon

his patient like a charm, allaying his abnormally irritable nervous system. It soothed him, assisted his private ruminations, it was his consoler in anxiety and helpmate in composition. All who knew him had seen the air deepened with the fumes of his pipe, when his mind was laboring with thoughts. Yet he lived the span of years allotted to mortals, falling ripe at the age of seventy-eight."

The late Charles Spurgeon, was an inveterate devotee at the shrine of St. Nicotine, and Howard states that morning, noon and night "he might be found ensconced in some quiet nook diligently, like a devout Parsee, keeping the sacred fire aglow. And it was to his nostrils like frankincense, leading his thoughts to Cerulean quarries in the sky where gems and sparkling wit were to be gathered for the delectation of hungering multitudes." Spurgeon said, "When I have found intense pain relieved, a weary brain soothed, and refreshing sleep obtained by a cigar I have felt grateful to God and have blessed His Name."

"I love Thee," exclaimed the voluble Captain Marryat, "I love thee more than a woman's love, Thou art a companion to me in solitude. I can talk and reason with thee, avoiding loud and obstreperous argument. Thou art a friend to me in trouble for Thou adviseth silence and consolest with thy calm influence over the perturbed spirit. I know not how thy power has been bestowed upon Thee yet, if it harmonizes feelings to allow the thoughts to spring without control, rising like the white vapor from the cottage hearth on a morning that is sunny and serene. If to impart that sober sadness over the spirit which inclines us to forgive our enemies, that calm philosophy which reconciles us to the ingratitude and knavery of the world, that heavenly contemplation whispering to us as we look around that all is good,—if those be merits,—they are thine, most potent weed." The poet Tennyson treasured his briar root, "and would seek seclusion with his silent friend, and draw unflinching solace from an inexhaustible jar." Kingsley appreciated the good qualities of tobacco, and loved it dearly and pays tribute to it in many of his writings, and we find a character in "Westward Ho" eulogizing it after this manner, "For when all things were made none were made better than this, to be a lone man's companion, a bachelor's friend, a hungry man's food, a sad man's cordial, a wakeful man's sleep and a chilly man's fire, Sir. While for stanching wounds, purging of rheum, settling of the stomach, there is no herb like it under the canopy of heaven."

And in our own day of war Guy Empey says, "Now let me tell you something about tobacco, do the men in the trenches want smoke! do they want their mothers! do they want their wives and sweethearts! do they want the fields and flowers at home! do they want smokes? They do want them, they cry for them, must have them. I'll tell you something else about smokes, the men on the stretcher and the dying man in the hospital cries for a smoke." And our good friend Kipling sings its praises after this manner:

"Thought in the early morning,
Solace in the time of woes,
Peace in the hush of twilight,
Balm ere my eyelids close."

Smoking, however, has been the object of bitter invective also and has had resolute opposition from potentates, statesmen and priests. King James in 1640 wrote his counter-blast to tobacco and many others have followed in his footsteps. King James sums up with these statements, "Tobacco is the lively image and patron of hell, for that it had by illusion in it all the parts and vices of the world whereby hell may be gained, to wit, First,—it is smoke,—so are the vanities of the world. Second, it delighteth them that take it, so do the pleasures of the world. Third,—men are drunken and light in the head so do the vanities of the world, men are drunken therewith. Fourthly,—he that taketh tobacco saith he cannot leave it, therefore it doeth bewitch him, and further, besides all this, is like hell in the very substance of it, because it is a stinking, loathsome thing and so is hell." Raleigh seems to have incurred his displeasure in introducing it into England in November 4th, 1603. It is even thought that this partially accounted for his being thrown into prison on a false charge and after 15 years was "judicially" murdered by order of the King. Mr. Sully of St. Thomas' Hospital in the middle of the last century started a violent crusade against tobacco, proclaiming there was "death in the pipe, and the rapid degeneracy of the human race, to him everywhere apparent, was to be regarded as the meritable consequence of indulgence in the pernicious weed." In our modern day there are crusades against tobacco, but the writer feels they do not handle the subject fairly from the broad standpoint, and personal prejudice and invectives never prove a point. In commenting upon a resolution passed by a certain Womans' Christian Temperance Union condemning the practice of smoking during war times, Life states "the Womans' Christian Temperance Union is a virtuous organization, sometimes useful, and sometimes very harmful. The trouble is that it never sees the whole of life. A fragment of life is visible to it and to that it inspires to make mankind conform. But mankind never will. A peanut fits all right in a peanut shell, but a pumpkin does not. Tobacco is a mild poison, and an antidote to such other poisons as fatigue, pain, worry, bad food, boredom, loneliness and the like. It is the most popular and the least harmful antidote for the great poison of war. Think of tobacco as a nerve medicine, ladies, and war as a condition of constant nerve strain."

Howard, speaking about its rapid popularity in the East says, "everywhere it was esteemed a blessing, a comfort, a priceless possession, and to its rare qualities were ascribed almost miraculous powers. The persistency with which men have stuck to the weed after once experiencing its soothing effects, ranks among the most remarkable examples which history affords of the rapid development of a new taste, and the formation of a new habit, a habit that after the lapse of three centuries and more grows stronger day by day, keeping pace with the increase of population until now it is too deeply rooted ever to be extirpated, even by taxation, however weighty. In its political aspect the career of the Indian weed presents a striking illustration of popular opinion ultimately triumphing over prejudice and power."

And now passing from the testimony and evidence of the joys which it confers on humanity and its survival from economical persecution, I will dwell for a moment upon the modern evidence of

its toxic qualities and the purely medical aspect. Just as the foregoing evidence of mental benefit cannot be overlooked, the clinical data as to its possible functional and structural harmfulness must be carefully weighed. I should like to discuss this consideration of its use under three heads:

- I. Period of initiation.
- II. Period of tolerance, without much evidence of structural lesion or functional disturbance.
- III. Period when the pathological and structural evidence of its use and abuse are most marked.

I.

During the period of initiation, the symptoms exhibited by the unaccustomed organism are decidedly toxic. What are they? nausea, vomiting, purging, extreme collapse, rapid feeble pulse, intense muscular weakness, labored respiration. These facts prove that tobacco is a poison and this potent primary effect cannot be dismissed with the statement that toleration is finally established. In the same fashion the first dose of morphia induces extreme revulsion in eight or ten hours, and later here too toleration is established, but with morphia, demoralization follows in the wake of increased dosage. With tobacco, however, all evidence happily points to the fact that there is no demoralization. That fact does not prove that a drug so potent in its primary effect has no deleterious action upon the circulatory and nervous system if continuously used. This introduces us to the second period, viz.:

II.

The period of toleration where palpable evidence of pathological changes are least marked, is usually a long one and one of great comfort and peace and delight to the smoker. It is due to the length of this experience and the pleasure he obtains therein, together with its comparative innocuousness to other drugs of the semi-narcotic or sedative group, that he sees benefit alone from its use. There is, as a result, a tendency to over use and the smoker shuts his eyes to its possible harmfulness when abused. And yet during the period of toleration and semi-toleration we have evidence of its toxic quality, especially when the addict touches the border line of over use. We have the functional disturbances of the heart sometimes cropping out in the susceptible. Slight disorders of the nervous system, tremors, exaggerated reflexes, headaches and giddiness, sometimes evidenced among those working in tobacco. During this period experiments in blood pressure are illuminating. Lauder Brunton says of the influence of nicotine, "The rise of blood pressure after injection of nicotine is only second to that of suprarenal extract. The rise is due to the contraction of the arteries and its ultimate effect is to increase the rapidity of the heart." He is fairly convinced that tobacco is among the causes of arteriosclerosis; that it aggravates existing hypertension and arterial degeneration, that unless used in moderation it is injurious. Norris, in his "Blood Pressure and its Clinical Application, states, "In smoking blood pressure is increased, owing partly to the stimulation of the vaso constrictor cen-

tre in the medulla, but chiefly to peripheral influences." He states that there are individual differences, but it tends to raise both pulse and blood pressure. Also that moderate smoking, to one who is accustomed to it, has little effect on blood pressure increase. In his experience the blood pressure varied after its use from 3 to 25 mm. The greatest rise in pulse rate was 25. Excessive quantities evidence a fall due to depression of vaso motor centres. He thinks its use as contra-indicated when we want to spare the heart in cardiac, renal, and pulmonary disease, in arterial hypertension, and arteriosclerosis. The symptoms and effects of tobacco during the initiative and first period of toleration would tend to establish the view that during this long period of toleration there are most likely insidious changes hardly discernable or palpable, going on and this is almost more than corroborated when we pass on to the third period, viz:

III.

The period when the pathological and structural evidence of its use and abuse are most marked. This is the period which commences usually after many years of use and, in the writer's experience, more frequently occurs between the ages of 45 and 60 than in previous or after years. As bearing on this period in which degenerative changes appear. Esser has stated recently that chronic nicotine poisoning in animals induces marked disturbances of the heart and degeneration of vagus fibres and are recognizable histologically. Changes have been found in the cell nerves of spinal cord and sympathetic ganglia, similar to those described under chronic alcoholic poisoning. These are two of the structural evidences of degeneration, but by far the most important evidence of degenerative change from the use of tobacco is to be found in the eyes. In fairness, however, we must first state that tobacco amblyopia, pure and simple, is not of very frequent occurrence, even among heavy smokers. Acute tobacco amblyopia is very rare. Indulgence for many years is usually necessary to produce the symptoms of the lesion. It occurs between 45 and 60 more frequently than before or after this age. The onset is usually very slow. The reduction in vision is usually the same in both eyes. The symptoms of night blindness or nyctalopia may be present. The progress of the disease is also slow. Total blindness seldom occurs unless associated with syphilis. The objective symptoms by ophthalmoscopic examination are not very marked, the nerve head may be congested in the early stages, but much more frequently pale, slightly greyish, and in rare instances presents the picture of atrophy. The field of vision exhibits marked symptoms. The field for white may be intact, usually is. The field for red and green is markedly impaired. There is a central scotoma for those colors which may be relative or absolute. Vision may be reduced to the point which incapacitates the individual or only inconveniences him. It may be from 3/200 to 20/40. Samelson was the first to record the changes in the optic nerve in nicotine poisoning. He demonstrated they were confined to the papillo macular bundle. In the course of the bundle within the optic nerve he found that the nerve fibres had disappeared and glia tissues alone remained. The connective tissue septa lying between the nerve

fibres was thickened. Alcohol and tobacco amblyopia frequently occur together, and central scotoma occur. How can we in this combination determine that tobacco is the cause of the lesion? There is one valuable test. In tobacco amblyopia, visual acuity invariably improves when we stop the tobacco. This is the happy feature in the treatment of tobacco amblyopia, and when we can assure the patient and calm his anxiety on this point, as we frequently can, it is a great source of comfort to him.

Finally, what are the concrete evidences for and against the use of tobacco as accumulated on these pages? On the one hand we have undoubted testimony from all walks of life of great pleasure and benefit derived from its use; that it combats many of the trials and afflictions of life. It is an antidote to worry, a solace in time of trouble, a lone man's companion; that it harmonizes the feelings, inclines us to forgiveness, promotes good fellowship and peace, soothes a troubled brain, "breathes contentment round the humble hearth." As to these we have the approval of many well balanced medical men that under certain conditions, principally moderation, it does real physical good and in combating the worries and irritabilities of life it may be an aid to longevity. On the other hand the clinical data proves that it is a violent poison in the initiative stage of its use. That in the stage of toleration it is not absolutely innocuous as in this stage spectroscopic blood changes exist. Blood pressure is raised. Acute symptoms of poisoning sometimes develop depending upon the amount taken and the susceptibility of the individual, and that after a long period of use certain lesions may appear such as degenerative changes in vagus nerve, the cell nerves of the spinal cord and sympathetic ganglia, as also an amblyopia or semi-blindness in which a lesion of the nerve fibres is demonstrated. On the data presented in these pages the writer would therefore present the following conclusions.

I. It must be regarded as a slow poison if used in any considerable amount and that the general opinion that it is always injurious to the young is correct as it is a poison to the young immature cells.

I. That there are marked differences in susceptibility and the individual should weigh his own idiosyncracies as a guide to its use.

III. That the existent physical well being in the early life of a smoker is not always an index to harmlessness as degenerative symptoms may and do appear after many years of toleration.

IV. That frequent although intermittent vascular stimulation must tend, according to the law of cause and effect, to arterial degeneration, and excess undoubtedly tends to circulatory and nerve degeneration.

V. That probably what is generally regarded as moderate smoking, the equivalent of 5 or 6 cigars a day, borders on immoderation from the standpoint of physical well being and longevity.

VI. That it undoubtedly is an antidote to worry, promotes good fellowship, renders life more bearable, is one of the least dangerous of the semi-narcotic group and above all does not demoralize.

VII. That in many instances the balance of good outweighs the bad influence on body and mind.

VIII. That to render its use comparatively innocuous and at the same time to derive the joys of peace, calm and solace, it un-

doubtedly bestows, much greater moderation and limitation of its use should be advocated, and if it were made less of a continuous habit and its use confined to times of worry, mental stress and turbulence, and occasional good fellowship, it would be better for the physical well being of the world who smoke.

REGULATORS OF METABOLISM.

John J. McNulty, M. D.

Manhattan, N. Y.

"All the protective substances, which are involved in the cure of disease are to be regarded as produced by the internal secretions."—Sir A. E. Wright.

THE interrelation and interdependence of internal secretions and enzymes in physiologic reaction.

"As yet the knowledge we possess is all too inadequate to allow us to formulate with any precision the interrelation of the various endocrinous structures with one another; all we can do is, in a tentative manner, to express the probable interrelations, not as a contribution to permanent knowledge, but rather as a guide to further investigation."—Noel Peton.

In the light we have to view the action and effects of internal secretions and enzymes reactions, they act physiologically only when acting in association. They seem dependent upon each other, both for activation and maintenance. While epinephrin or posterior lobe pituitary substance applied locally usually produces vaso-constriction, this is but the topical or incidental effect.

It now seem probable that physiologic balance is dependent upon properly associated action of internal secretions and enzymes; and we believe that the functioning, that is, normal functioning of the automechanism is one of interdependency.

If we are to intelligently and beneficially use ductless and duct gland substances in modern organo-therapy, let us endeavor to somewhat understand how Nature seems to maintain physiologic equilibrium—health.

Man, physiologically considered, is the expression of his "rate of reaction." Present day man seems to be expressing underfunctioning, hypoaction of the glands producing internal secretions and enzymes; and if this be physically true the logical and scientific way to "treat" this underfunctioning or hypoaction of the "body auto-protective mechanism"—the pituitary, thyroid, suprarenal, gonad and enzyme cycle—is to administer, in proper association, these internal secretions and enzymes from without.

" . . . why we make an independent science of physiology is because the laws of physics and chemistry exert their influence in a specially complex system. At present, we are unable to analyse the workings of this machine to more than a limited extent."—Bayliss.

"We no longer look upon protoplasm as a substance; we now

recognize that it is protoplasm only in virtue of its constant cycle of chemical change."—Paton.

Associated or physiologic gland therapy to be scientific and efficacious should be considered quantitatively, as well as qualitatively. As internal secretions and enzymes in physiologic associated action are catalysts, they should be administered for their vitality in small quantity. In this association, and with effective vitality, their action is to increase "concentration and velocity of reaction."

"The velocity of reaction and the conditions effecting it, together with the energy changes involved, are, therefore, more essential than the chemical structures or physical properties of the reacting substances or the resulting products."—Bayliss.

"It is of the greatest importance for the understanding of the behaviour of organisms, to look upon them chiefly as something dynamic—as processes rather than structures."—Jennings.

"A certain amount of repetition is unavoidable, since the same process has different aspect, and, owing to the interaction and interdependency of the phenomena observed in the more highly developed organisms, it is impossible to avoid references in the general treatment of activities, which are also described as parts of complex actions."—Bayliss.

"It is now universally recognized that the chemical changes in protoplasm, which constitutes its metabolism are the basis of all the phenomena of life."—D. Noel Paton.

"For the life of the organism co-ordination of the metabolism of all the different tissues and organs is necessary, and each advance in physiology emphasises the marvelous perfection of this co-ordination and demonstrates still more clearly of what vital moment it is in the life of every living being."—Paton.

Such experiments are those made by Professor Chittenden with associated internal secretions and enzymes, show how the administration of associated gland substances awaken (activate) protoplasm to increased active expression—increased so-called "leucocytosis"; and, in the light of present knowledge, it is protoplasm and its resources of action that constitute physical life and the phenomenon of normality. We are on the plane of increased perception where at moments we seem to catch glimpses of Nature's mode of action.

Associated internal secretions and enzymes therapy has created a new therapeutic era—an era as beneficial as it is scientific. It has changed our whole thought towards disturbances of physiology—disease, and has made us rational and confident practicing physiologists. To quote from a paper recently read: "We can now treat successfully disorders and disease formerly considered incurable. No physician with present day understanding allows a fatal prognosis to take possession of his thoughts, nor will he voice a fatal prognosis. He has seen the 'impossible' changed into the possible. We now have sufficient understanding of a fixed and definite physico-chemical principle to apply it curatively in modern therapy. Dawn is appearing over the domain of physico-chemical reactions and we are beginning to understand these influences and utilize them beneficially in physiologic therapy. The old idea (ignorance) of the

futility of treating so-called 'incurable diseases' is rapidly giving place to definite and confident therapy based on successful issues."—

"We desire this paper, which is merely a fragment in the vast domain of physico-chemistry, shall prove of practical value as an awakener to the general practitioner in his endeavor to successfully aid Nature in her ever operative law of repair. Nature is truly ever active in this law of repair, and it is the physician's first duty to try to observe, understand and co-operate with this law of reconstruction. It is a great error, a great wrong to limit the human organisms reconstruction resources."

"So far as physiologic processes stand revealed, it is the so-called internal secretions and enzymes that play the role of automatic protectors and reconstructors."

"The real value of physiologically associated internal secretions and enzymes is in the treatment of "errors of metabolism" i.e., errors of nutrition. It seems to us that the serious error in past therapy, as well as in much present day therapy, is in being mesmerized with the pathologic names, and foolishly treating the names rather than the physiologic disorders that seem to ultimate in these names—pathologic end states."—J. J. McNulty.

"The recognition of the vast importance of the secretory function of the group of glandular organs constitutes one of the finest achievements of modern experimental physiology. It more particularly includes the physiology of the thyroid gland—the pituitary gland, the suprarenal capsules."—Luci Luciani.

Internal secretions and enzymes in physiologic association and activity are Nature's mode of autoprotection and it is the practicing physician's role to co-operate with this law of auto-protection and maintenance. Enough of this law of autoaction stands revealed to guide us in intelligent service.

The facts that seem to stand conspicuously out are that Nature reacts only as a complex association of interdependent reactions; that internal secretions and enzymes, as a cycle, physiologically act in high velocity of reaction—not so dependent on quantity. These are important facts to keep in thought in the administration of associated internal secretions and enzymes.

Associated internal secretions and enzymes are employed in modern therapy to increase protoplasmic activity or expression. They are administered to awaken or enhance the phenomenon of metabolism. Present day man, physiologically considered, seems to be suffering from hypoaction—metabolic apathy, or associated glandular insufficiency.

What seems to be, and what has proved to be good practice in this modern state of subefficiency, is the intelligent and technically perfected employment of associated internal secretions and enzymes. The modern therapist is a practical physiologist, or should be. Medical service can only be made truly servicable as the physician co-operates with Nature's revealed law of conservation and protection.

The physiology of defense or resistance: Resistance to attack from without, is dependent, it now seems, upon the activity or normality of the autoprotective mechanism—the

thyroid, pituitary, suprarenals, enzyme cycle, gonads. It is the finest endeavor of the clinical physiologist to work with this law of autoprotection.

" . . . every infectious disease is the result of a struggle between two variable factors—the pathogenic powers of the bacteria on the one hand, and the resistance of the subject on the other, each of these again modified by variations in the conditions under which the struggle takes place."

" . . . susceptibility or resistance of the individual may be determined by variations in the physiologic state or by the environmental conditions under which the two factors—invador and invaded—are brought together."

" . . . the animal disposes normally over a defensive mechanism of considerable efficiency."—Zinsser.

Physiologically associated internal secretions and enzymes increase the rapidity or "rate of reaction" and the rapidity of transmutation of ingesta into expressed energy.

"While it is possible for a human being to live with greatly reduced activity when sound asleep, without food in the stomach, and without extraneous muscular activity, his efficiency as a member of human society in such a state would be negligible. It is therefore only as the cellular activity increases, that we find him becoming more and more of service to humanity, and not until he is erect and ready to perform his work is he in a condition to live on a basal plane that is of practical value."—Benedict and Carpenter.

It is our serious and responsible study to effect a proper relation of supply of internal secretions and enzymes to food ingestion that a metabolic equilibrium of efficiency may appear.

"The most profound disturbance of metabolism may occur without producing structural alteration. On the other hand, extensive structural changes, especially of the connective tissue frame work of an organ, may occur without its functional activity being seriously implicated."—Noel Paton.

Ingestion of food: "The varied roles in the maintenance of normal nutrition and the promotion of normal growth in animals and man are rapidly being defined, so that we now have a group of diseases, which are generally recognized as resulting from deficiency of one or another of these accessory substances. . . . accessory food substances called by Funk, *vitamines*."

"The study of the *vitamines* is proceeding apace and our knowledge on the subject is forming into definite shape. According to Marion D. Hise, who wrote concerning the effect of *vitamines* in body growth, the deficiency diseases owing presumably to the absence or the lack of *vitamines* in the diet."

Ferments? "So wide is their dominion in cell chemistry that many physiologists have thought that the whole of life is really a continued series of ferment actions."

"Many other ferments will probably be distinguished with increase in our knowledge of cellular metabolism."

"The action of the ferments . . . is to quicken a process of hydrolysis which these processes would take an infinity of time for its accomplishments."

"Since the catalyser is unchanged in the process, a very small

quantity is able to influence reaction involving large quantities of other substances."

"The velocity of almost any reaction in chemistry can be altered by the addition of some catalytic agent."—Starling.

So-called leucocytosis is one of the physical manifestations of this unerring instinct of activity.

" . . . the impossibility of ever explaining protoplasmic activities on physico-chemical lines."

"At the very outset of our studies, we are faced by one of the most difficult problems with which the biologist has to deal, namely, the structure, chemical and physical, and the elementary properties of protoplasm. This substance is met with in all living cells, but in various degrees of differentiation into more specialized structures."

"This property of forming organs for temporary use, as required, is regarded by von Nexkull as demonstrating the impossibility of ever explaining protoplasmic activities on physico-chemical lines."

"With regard to the accessory factors, . . . it will be clear that, if a certain chemical grouping is required for a special purpose in the organism, such as an internal secretion, and if the organism is unable to synthesise it for itself, then it must be given in the diet."

"In the wear and tear of the protoplasmic mechanism only a certain part requires replacement, not the whole of a complex molecule."—Bayliss.

"Catalytic power appears to consist essentially in the fact that substances are able to set into activity affinities which are dormant at this particular temperature, and this not by their own affinity, but by their presence alone."—Berzelius.

"Ostwald therefore defines a catalyst as a substance that increase the rate at which equilibrium is reached."—Bayliss.

"The progress of every science and every branch of a science is like that of a ship beating to windward, now to one side, now to the other of the straight line towards the port ahead, and, every now and then it is well that the position, as regards the true course, should be determined."—D. Noel Paton.

My own belief is that the so-called internal secretions are interdependent for sensitization, that is, need each other in the complex activity we call metabolism—"they interact upon one another."

"The interaction is primarily a chemical one so far as the production of the secretions is concerned, and not an indirect one through the nervous system."—Paton.

The paragraphs of this paper have been thrown together as notes or quick references from which to address this meeting, rather than as an article written for literary unity.

PROGRESS IN OPHTHALMOLOGY.

Part Three—Number One.

Compiled by James Cole Hancock, M. D.

Brooklyn, New York.

W. H. MANSON, T. J. Mackie and H. E. Smith lay stress on the well recognized facts that the positive results of the Wassermann Reaction are of great value, and that the conclusions to be drawn from negative results are less definite. These gentlemen furnish a report of 250 ophthalmic cases. In the tertiary and latent stages of syphilis, only 75 per cent and 50 per cent respectively yield a positive result. In Interstitial Keratitis the reaction was positive in 88.8 per cent. In Strumous Keratitis the result was negative in all. In Iritis and Iridoclytitis the cases were obtained in two series; twenty-two in the first group gave twelve positive and ten negative reactions. In the second group of twenty-eight cases, fifteen were positive, twelve negative and one doubtful. Three cases of uncomplicated Cyclitis were negative. In Choroiditis, of twenty-six cases, five gave positive and twenty gave negative results, while one was doubtful. Four cases of Sympathetic Ophthalmia gave negative results, as, also, did three cases of Retinitis Pigmentosa. Five cases of Retinal Detachment gave negative results. In Inflammation of the Optic Nerve and Retina, only five positive cases were obtained out of a total of fourteen. In Optic Atrophy, of twenty-one cases, fifty-seven per cent gave positive results, and it is interesting to note that ten diagnosed as Primary Optic Atrophy were all positive. Thirteen cases of paralysis of the Ocular Muscles gave seven positive results, of which four were in cases of Third Nerve Paralysis. All six negative results were in cases of paralysis of the sixth nerve. (Note: The above extract is of very real importance as Syphilis is the ready refuge to which we are all apt to fly when looking for a cause for the trouble in hand, be it with the eye or other organ, and when not clearly demonstrated. Fifty per cent of the eye cases reported by these gentlemen in the papers from which these notes are taken gave a positive reaction. This shows how very important it is to be suspicious of an obscure case. There are those who claim that all cases of Interstitial Keratitis are "specific," and a showing of 88.8 per cent goes a long way to confirm this stand. That the result was negative in all the cases of Strumous Keratitis is very interesting as, to me, at least, there has always seemed to be a closer relation between strumous and "specific" trouble than this would bear out. Attention is directed to the fact that over half the cases of Optic Atrophy gave positive results, and that all the cases of Primary Optic Atrophy gave positive results. Over half the cases of Ocular Muscle Paralysis gave positive results, a very significant fact. J. C. H.)

R. J. Terry and M. Weiner give an interesting report concerning the drug, Dextrohyoscyamine, they having discovered a prop-

erty of this drug which had not been before described and that is that it dilates the pupil to the maximum, having little or no effect upon the accommodation. They found that 0.5 per cent solution caused a dilation of the pupil in about forty minutes, lasting, on an average, twelve hours, the accommodation being but slightly disturbed in most cases and in some not at all. They also found that when the solution was not fresh accommodation were more affected than when fresh solutions were employed. They should be made up immediately before using. The drug is now put up in tabloid form to be used in the conjunctival sac. Among several thousand patients in which the drug was used the writers have no detrimental effects to report. It is used for dilation for making examinations and for retinis copy. (Note: No mention regarding age in connection with the use of this drug is contained in the abstract of the original papers from which these notes were taken but it would seem to me that it would be as dangerous as any other agent that would dilate the pupil, in certain conditions, such as a tendency to tension. Just how it is especially useful in connection with retinoscopy is hard to understand, as here, simple dilation of the pupil is not what we aim for but paralysis of accommodation. J. C. H.)

Maitland Ramsey has written a very interesting paper on, "Treatment of Pneumococcus Ulcer of the Cornea." He states that after thoroughly washing out the conjunctival sac and removing any foreign particles from the lids there should be instilled a few drops of a two per cent solution of cocaine followed by the application of an ointment of one per cent atropine, two per cent cocaine, and three per cent iodoform when the eye should be covered with a compress and bandage. Further treatment should be as follows: Optochin (Ethylhydrocuprien Hydrochloride) should be employed in one or two per cent aqueous solution, the floor of the ulcer having previously been cleaned with a solution containing Chinosol (1-4000), or Quinine Hydrochloride (3 grains to 1 fluid ounce), diluted with an equal quantity of warm water, and the boundries of the ulcer should be outlined with an alkaline solution of Fluorescein. A swab of sterilized wool or cotton of sufficient size to cover the whole of the ulcerated surface, and saturated with a one per cent aqueous solution of the Optochin, should be applied to the ulcer, and kept in firm contact with its floor and margin for about two minutes. Cocaine may be used before the application is made if necessary. These applications should, at first, be employed two or three times a day, the good effect being maintained by instilling a few drops of a one per cent solution of Optochin every hour during the day, while during the night a one per cent Optochin and Atropine Ointment may be applied a number of times.

(Perhaps there are few more impressive incidents in the course of an ophthalmic practice than that known as, "Post-Operative Insanity," and it is combined in these notes, not because it is new but because it is comparatively little known of, especially among others than ophthalmologists. Two or three cases have come under my personal observation and they were of the most violent kind, requiring physical restraint, even to the point of strapping the patient to bed. One may readily imagine

the solicitude for the success of a cataract extraction in the presence of such a contingency, particularly as these attacks often come on within a very few hours of the operation. J.C.H.) This subject is discussed in a paper by A. O. Pfingst appearing in the *Journal of Ophthalmology and Oto-Laryngology* and he stated that mental symptoms are more liable to follow operations upon the eye than upon other parts of the body. Pfingst's observations lead to the following conclusions: viz. that:

First. Post operative insanity does not occur in individuals who are mentally sound; that there is probably a pre-existing unstable nervous system.

Second. The cases nearly all occur in senile subjects, and younger subjects, with analogous symptoms nearly always have atheromatous blood vessels or diseased kidneys.

Third. The most probable cause of the predisposition is an atheromatous condition of the blood vessels and possibly diseased kidneys with resulting intoxication—hence these cases are more properly senile or toxic (renal) insanities than post-operative or dark-room deliria.

Fourth. All cases of mental aberration associated with hallucinations, etc., even though they be of short duration, may be looked upon as cases of true insanity—differing only in the nature and severity of the symptoms.

Fifth. Psychoses may occur after any kind of operation, but that they are especially prone to follow operations upon the genitals and the eyes and, more especially, cataract operations.

Sixth. Insanity occurs perhaps once in every 400 to 600 cases of surgery, including ophthalmic surgery, and occurs in about every 200 or 300 cases of cataract extraction.

Seventh. The psychoses following ophthalmic surgery do not differ materially from those after general surgery.

Eighth. Many of the cases are of brief duration, two to four days, but some last months or years, or the patients may become permanently insane. A small percentage of patient die as a result of the nervous affection.

P. H. Dernehl, in discussing focal infections as a cause of ocular disease, remarks that the connection is better understood when, for instance, an iritis occurs shortly after a gonorrhea or as a direct sequela of a urethritis. When the iritis occurs independently of and in the absence of any genito-urinary symptoms, or when the interval which has elapsed between the initial gonorrheal infection and the iritis has been so long that the relation of the former as a progenitor of the latter is entirely lost sight of the the vague term "idiopathic" or "rheumatic" is usually applied particularly as a history of rheumatism can often be elicited. Regarding the clinical entity of such form with its masked etiology opinions are widely different. Its actuality as a gonorrheal iritis is denied by some and modern teaching seems to regard iritis from this cause as a rare disease. Fuchs and De Schweinitz in their report at the International Medical Congress, in London, in 1913, upon chronic uveitis, exclusive of luetic, tuberculous and sympathetic forms, express the opinion that the gonococcus plays a very small role in these late chronic forms, but that a rheumatic etiology is very doubtful. Goldzieher believes that chronic gonorrheal iritis is much com-

moner than is generally supposed, placing it next to luetic iritis in frequency of occurrence, and that many cases of so-called rheumatic iritis can upon careful study be shown to be gonorrheic in origin, with shreds and organisms in the urine. That much more study and time spent upon these cases is necessary to perfect our knowledge of them is certain but doubtless will result in bringing much light to the subject. Griffith reports a series of cases of gonorrheal iritis, all males, in which iritis followed from four to fifteen years after the primary gonorrheal infection. Bacteriologic examinations were not made. Griffith opines that many of the reported rheumatic iritis cases are gonorrheal in origin. Beaumont saw at the Royal Mineral Water Hospital twenty patients from 1888 to 1907, who came as victims of either gout or rheumatism or rheumatic arthritis, and who suffered from either acute or sub-acute iritis. Two of these were females, eighteen were males. Sixteen confessed having had gonorrhea. Of these one gave the history of having had the infection one year ago, one fifteen years and one ten years ago. The remaining cases reported a shorter time. Bacteriologic examinations were not made. Beaumont is of the opinion that rheumatic iritis is a very rare disease, and that critical inquiry will often demonstrate a gonorrheal arthritis depending upon a gonorrheal focus for its start.

W. H. Blaumont has investigated the subject of focal infection in connection with the causation of iritis and quotes Lang's statistics, that 64 per cent of the cases of iritis, attributed to sepsis, are caused by pyorrhea alveolaris. Careful examination of the teeth should be made in all cases of iritis where the cause is not fully determined. Beaumont says that drastic measures are in order if the septic foci are in the mouth and that it is better to lose thirty-two teeth than one eye. Now that it has been demonstrated that we have in emetine hydrochloride a real specific for pyorrhea, through the use of which we can not only cure the disease, but usually save the teeth at the same time it is apparent that the alkaloid should be given a further trial whenever the iritis is complicated with Rigg's disease. C. A. Wood states that, "Without disparaging the praiseworthy efforts of the internist and surgeon to provide the ophthalmologist with a rational etiology for uveal diseases, it yet seems that we are in danger of riding dangerous hobbies. After a time, when the tonsils and teeth have followed all the appendices, what organ will be safe?"

A. Bader reports six cases in which he used subconjunctival injections of Potassium Chloride, as a substitute for ordinary salt solution in chronic uveal disease. The solutions used were of a strength of from one to two per cent. These were well tolerated by the eyes. They are more painful than the corresponding salt solutions and are best made with an addition of one per cent novocain. Having a more intense action than salt solutions, weaker concentrations and smaller doses suffice for therapeutic stimulation. They favorably influence the diseased tissues of the eye by exerting a local hyperemia, promoting the circulation and thereby bring about the absorption of intra-ocular inflammatory products, such as opacities of the vitreous, etc.

MINUTES OF THE TWENTY-FIRST ANNUAL MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

THE Twenty-first Annual Meeting (sixty-second regular meeting) of the Associated Physicians of Long Island was held at the Kings County Hospital Saturday, January 25th, 1919, there being a continuous session, in one way and another, from nine-thirty in the morning until after eleven in the evening. Clinics were held during the day by Doctors S. James McNamara, Henry M. Mills, Albert M. Judd, Calvin F. Barber, Walter A. Coakley, William J. Durkin, W. W. Hala, William Browning, Hurbert Arrowsmith and John W. Durkee.

At the Scientific Session, over which Doctor S. James McNamara presided, Doctor John J. McNulty of Manhattan read a very interesting paper entitled, "The Relation and Inter-dependence of Internal Secretions and Enzymes, in Physiologic Reaction, and their Application to Modern Therapy."

At the Business Session, which followed the Scientific, the President, Doctor Lefferts A. McClelland, of Brooklyn, presided. As the minutes of the last meeting had been published they were not read, by general consent. The Membership Committee presented the name of Doctor B. B. S. Blackstone, University of Pennsylvania 1918, of 174 Lorimer Street, Brooklyn, N. Y. proposed by James Cole Hancock, for membership. This name was favorably acted upon. The Publication Committee presented the following report, read by Doctor William H. Ross. of Brentwood, Chairman:

REPORT OF THE PUBLICATION COMMITTEE.

It has been harder work to maintain the standard of the *Long Island Medical Journal* than hitherto because of the difficulty of getting material for publication. Many of the writers of articles have been, and are still, in the Army—and still a good *Journal* has been maintained.

The cost of the *Journal* this year has been..... \$5,062.00
It was estimated last year that the cost would be \$5,200.00

So you see that we have kept within the budget.

To show how carefully the affairs of the *Journal* have to be managed, we may review the cost of the *Journal* for the last six years: The cost for the year

1912	\$4,359.00
1913	5,280.00
1914	5,793.00
1915	4,260.00
1916	4,187.00
1917	4,946.00
1918	5,062.00

In spite of the increased cost of everything the *Journal* has cost only \$700.00 more than it did six years ago, which means that it has, relatively, cost less, for the increased cost of everything would have made it cost more.

The Committee reminds the Association that it is your *Journal* and urges you to support it even better than ever before; talk of it, be proud of it, and help it to hold its place among the good journals.

WILLIAM H. ROSS, M. D.,
Chairman of the Publication Committee.

This report was ordered accepted and filed.

The Historical Committee presented the following report:

REPORT OF THE HISTORICAL COMMITTEE.

The end of the year indicates that the report of your Committee is due.

A number of our associates have ended their life work among us, many of whom have been active in the work of our Association. They have all been a credit to the community in which they lived.

Our duty at this time, in token of respect to their memory, is to record their names, and with this feeling their names are so recorded.

NECROLOGY, 1918.

Active and former members of the associated physicians of Long Island:

1909-1917	George Augustus Ostrander, A. M. M. D.	Died	Dec. 26, 1917.
1900-1917	John Harrigan, M. D.	"	Dec. 30, 1917.
1902-1918	Ernest Frederick Luhrsen, M. D.	"	Feb. 3, 1918.
1905-1918	Thomas Henry Northridge, M. D.	"	Feb. 10, 1918.
1916-1918	John Franklin Southmayde, M. D.	"	Mar. 12, 1918.
1909-1918	Adelbert Dalton Atwood, M. D.	"	April 28, 1918.
1900-1918	George Albert Williams, M. D.	"	May 11, 1918.
1901-1915	Lewis Edgar Meeker, M. D.	"	May 23, 1918.
1905-1917	William Austin Macy, M. D.	"	May 21, 1918.
1905-1906	Enoch Pink Lawrence, M. D.	"	July 26, 1918.
1904-1912	Forbes James Munson, M. D.	"	July 27, 1918.
1911-1918	Rudolph Berendsohn, M. D.	"	Aug. 16, 1918.
1916-1918	Harold Milne French, M. D.	"	Oct. 18, 1918.
1899-1918	John Peter Heyen, M. D.	"	Oct. 30, 1918.
1910-1918	Emanuel Joseph Leavitt, M. D.	"	Oct. 24, 1918.
1911-1918	David Webster Meyer, M. D.	"	Oct. 24, 1918.
1915-1918	Frank Henry Knight, M. D.	"	Oct. 28, 1918.
1914-1918	J. Stewart Doubleday	"	Nov. 14, 1918.

During the year 1918 the names of nineteen physicians were presented for membership representing the following named Colleges and Universities:

Long Island College Hospital	4
College of Physicians and Surgeons, New York	3
Bellevue Hospital Medical College.....	1
Albany Medical College	1
New York Eclectic Medical College.....	1
New York Homeopathic Medical College.....	1
Yale University	3
Johns Hopkins University.....	1
Fordham University	1
Cornell University	1
Tennessee University	1
University and Bellevue	1
Total	19

As in past years the *Long Island Medical Journal* has published short obituary notices of our deceased members, which, from the feelings expressed by members of their families, have been appreciated.

Your Secretary has taken the same interest in the work of the Historical Committee during the year as in former years, and the members, generally, have responded with more zeal than heretofore.

We extend to the Association our best wishes and hope for its continuous prosperity.

THE HISTORICAL COMMITTEE,
William Schroeder, M. D., Chairman.

It was ordered that this report of the Publication Committee be accepted and filed.

The Secretary read the following report which was ordered accepted and filed.

REPORT OF THE SECRETARY.

Mr. President: Your Secretary has to report that the Society has passed through a rather trying year, owing to war conditions, many of our members being away in the Service of the Army or Navy and many having resigned.

There are at present 901 members on the roll. Of these 8 are Honorary members, 2 Emeritus members and 891 Active Members. Of the active members 647 are from Kings County and 246 from Queens, Nassau and Suffolk Counties.

For the first time in the history of the Society we have lost one of our Honorary Members by death. The Honorable Theodore Roosevelt passed away on January 6th, 1919, after a life of strenuous activity largely devoted to public affairs. Colonel Roosevelt attended two of our meetings and gave an address at each. These two meetings were the most largely attended meetings of any ever held by the Society and both were held at Oyster Bay, the first, July 12, 1905 and the second October 15th, 1910.

During the year we have lost 11 of our Active Members through death.

Respectfully submitted,
JAMES COLE HANCOCK, Secretary.

The Treasurer, Doctor Edwin S. Moore of Bay Shore, read his report.

REPORT OF THE TREASURER.

Balance on hand January 1st, 1918.....	\$ 139.44
Received from dues	2,128.00
Received from advertising	3,820.39
Received from miscellaneous source	5.65
	<hr/>
	\$6,093.48

EXPENDITURES.

H. G. Webster, M. D., Editor balance 1917	\$ 500.00
H. G. Webster, M. D., for 1918	600.00
H. G. Webster, M. D., for stenographer	680.00
Whitford for plates	299.00
H. G. Webster, M. D., petty cash.....	56.63
Postage, Carley, Cooperstown	94.58
A. H. Crist and Co., printing Journal	3,340.20
N. D. Webster for 1917 and 1918.....	108.64
Kings County Medical Society.....	13.20
Secretary, postage, etc.....	62.82
Treasurer, postage, etc.....	74.56
Hunter Collins and Co.....	153.19
Printing, S. J. Long.....	29.00
Miscellaneous	25.05
	<hr/>
	\$6,038.17
Balance on hand January 1st, 1919.....	55.31
	<hr/>
	\$6,093.48

EDWIN S. MOORE, M. D., Treasurer.

The Report of the Treasurer was ordered to be accepted and filed after the Treasurer's account for the year 1918 had been audited.

The accounts were audited by Doctor J. Carl Schmuck.

It was moved, seconded and carried that a Committee of three be appointed by the President to draw up suitable resolutions as our tribute to the memory of our esteemed Honorary Member, the Honorable Theodore Roosevelt, who died January 6th, 1919. The President appointed to the committee: Doctors Edwin S. Moore, Bay Shore, Chairman; William Francis Campbell, Brooklyn; and H. Beeckman Delatour, Brooklyn.

The Nominating Committee recommended the following nominations for the year 1919:

For President	William A. Hulse	Bay Shore, N. Y.
First Vice-President	Henry Goodwin Webster	Brooklyn, N. Y.
Second Vice-President	Harris A. Houghton	Bayside, N. Y.
Third Vice-President	Hugh Halsey	Southampton, N. Y.
Secretary	James Cole Hancock	Brooklyn, N. Y.
Treasurer	Edwin S. Moore	Bay Shore, N. Y.

The President called for nominations from the floor. There being none the Secretary was directed by the Society vote to cast one ballot for the election of the above.

After the business session the members assembled in the dining room of the Nurses' Home where they were entertained with a most enjoyable luncheon provided by the hospital authorities, after which the Honorable Bird S. Coler, Commissioner of Public Charities, for the City of New York made an address of welcome. Then followed an inspection of the Nurses' Home through which the members were conducted by Doctor John F. FitzGerald, General Medical Superintendent of the Department of Charities of the City of New York. Here everything possible seems to have been done to make the nurses comfortable, and apparently, the efforts have met with complete success. There are reading rooms, a library, demonstration rooms, a gymnasium and many pleasant balconies and sun parlors, lecture rooms for instruction during the training course and a well equipped hospital. The sanitary arrangements are of the best. Each nurse has a well furnished room and one to which it must be a pleasure to retire after the arduous duties of the calling. The other new buildings which have been erected as a part of the hospital during the past few years were well worth a visit and this was particularly true of the Children's Hospital which is a model of its kind.

Although this great hospital is so near us we do not know nearly as much concerning it as we should. Every Doctor in Brooklyn should visit it at least once and the general public would do well to become better informed concerning an institution of such undoubted importance in the City. The hospital property comprises sixteen city blocks upon which are built a number of large and commodious buildings all of which are lighted by electricity, and heated, from single central plants on the grounds, and the laundry work for the entire institution is done on the premises. In the hospital proper there are twelve hundred and twenty five beds and eighteen thousand patients were treated last year. The admissions average seventy-five a day. In addition to the beds in the hospital there are four hundred in the "Chronic Hospital." Between six hundred and fifty and seven hundred people are required in the running of the hospital, most of whom are "resident." The Executive Staff is a large and very competent one, there are, normally, twenty-five on the medical "House Staff," there are one hundred and fifty nurses, and the number of consulting and visiting physicians is no less than eighty. The hospital runs four motor ambulances.

At the conclusion of the meeting at the hospital a vote of thanks was tendered Commissioner Coler and General Medical Superintendent FitzGerald. Every one at the hospital was untiring in showing us every courtesy.

Dinner was served at the Hamilton Club at seven o'clock and was attended by one hundred guests and members. Very interesting speeches were delivered by the Honorable Frederick E. Crane, Associate Judge of the Court of Appeals of the State of New York, Major George Haven Putnam, a veteran of our Civil War and a deep student of our recent one, Doctor Gregory Strangnell,

who had had practical experience of most of the many phases of the recent war, and who spoke interestingly concerning them, and also of National matters to follow the War, and Sargeant Alexander Conbrough of the Australian Forces, who vividly described his thrilling experiences with his regiment in the Turkish Campaign. The President, Doctor Lefferts A. McClelland of Brooklyn was Toastmaster and at the conclusion of the speaking voiced the opinion of all who attended the meeting by stating that the untiring efforts of Doctor S. James McNamara, as Chairman of the Scientific Committee and Doctor Edward E. Hicks, as Chairman of the Entertainment Committee, which were so largely responsible for making the meeting the great success it was, were fully appreciated.

JAMES COLE HANCOCK, Secretary.

By reason of wartime conditions and delays, the publication date of the Journal has been gradually delayed. In order that the Journal may appear as heretofore on the 10th of the month, it has been decided to combine the March and April numbers. Hereafter it is hoped that the Journal may appear regularly on the 10th of the month.



EDITORIAL



HEALTH INSURANCE

ONCE more the Legislature of the State of New York has demonstrated to the medical profession its confidence and good will, by introducing Senate Bill No. 93, providing for health insurance for the downtrodden people of New York State. For several years the American Association for Labor Legislation has been at work upon propaganda providing for some form of health insurance, and regularly, year after year, the bill has failed because there was no call for it. Now the labor leaders have been persuaded that they must have health insurance and the Governor has pledged himself that health insurance they shall have.

The present bill based upon previous drafts, but modified materially, provides that employers and employees shall contribute funds out of which any employee, his wife or dependent children, shall receive free care in time of sickness for a period not to exceed twenty-six weeks; that he shall also receive hospital care, consultations, the service of specialists for his eyes and other organs; free surgical appliances, including glasses, trusses, crutches; free nursing; free maternity service; free burial and a sick benefit during disability. It is proposed to divide the State into districts of about five thousand each. Each district shall be administered by a local board chosen by both employers and employees and subject to a paid commission to be appointed by the Governor. It also provides that the Commission shall arrange with physicians to give such care and attention and that medical inspectors shall be appointed to prevent malingering. Recent amendments plan to limit the benefits to ordinary employees in order that the horde of highly paid potentates like Mr. Shonts, may be excluded from the working man's privileges. They also have included a little joker whereby the doctors upon whom the Act depends for its administration, are carefully excluded from any possibility of a voice in management and, except as they may bargain individually, from any participation in fixing the compensation that shall be paid them.

Much may be said in favor of the principle of health insurance. It is unquestionably true that a man who makes \$1,500 a year and has a family to support and feed, can lay nothing aside for time of sickness. It is equally true that the average citizen is woefully shortsighted in failing to provide a reserve to meet such emergencies; even were he able to spare something from a limited income, it would be entirely inadequate to meet the demands of serious or protracted illness. Heretofore the situation has been met by the employment of a lodge doctor or of the employee of the medical insurance company and the attendance provided in every case has been only what has been paid for. A doctor who is paid ten cents a visit will give ten cents' worth and

no more. Now, if through cooperation funds may be provided to meet serious illness in sufficient amount to employ physicians of the best type, it is obviously of immense value to the poor man and incidentally it makes it possible for any physician to give attention for which he can be assured of reasonable remuneration. Health insurance is no new scheme. It has been tried out on the Continent and in England. In Austria and Germany the financial arrangements that were forced upon the physicians were so inadequate as to cause a very general dissatisfaction which was reflected in England when Lloyd George's Health Insurance Act was passed. The medical profession of England was tremendously opposed and in the beginning used every means to combat the plan, but up to the time when the great war disorganized all branches of society, it had been demonstrated that those physicians who accepted service under the Act had found that even with the small fees provided they were yet able to realize comfortable incomes from a class of practice which had previously been either entirely charity or had paid a little now and then. There can be little doubt that physicians in America would find that the present abuse of hospitals and dispensaries would be largely relieved; that cases of serious illness which can now be treated only inadequately in poor homes, could by virtue of the provision, have proper nursing; obstetrical cases could be not only successfully treated but could be undertaken profitably as well. Two desirable conditions would therefore result from a properly devised scheme of health insurance for the poor. First, the best sort of medical care for them, and, Second, adequate recompense for the doctor from a class which is at present unproductive.

The bill under discussion, however, contains some provisions that are distinctly vicious and because of the presence of these provisions and more particularly because of the complete absence of any provision to safeguard the physician, the only purpose which can recommend the bill will be defeated and the poorer classes in whose interest the bill is ostensibly framed will be left no better off than they are at present. It is obvious that no physician will consent to bind himself to undertake a class of work that will render it impossible for him to make a livelihood proportionate to his professional ability. Not only does the Donnelly Bill fail to provide a minimum compensation for the physician, but it places absolutely in the hands of the politicians the entire management of the scheme and reduces it to a game of patronage controlled from Albany. For instance: It is proposed to divide the State into districts comprising about five thousand inhabitants each. Two thousand districts, each with a local board of seven, with its paid clerk, its paid medical inspector and its practical absolute control of funds, together with an appointive commission at Albany, would be a neat political asset for any Governor to covet. Again, the question of the employment of physicians is left in such a form that those physicians who agree to undertake health insurance work are practically forbidden the right of collective bargaining, while the State reserves the right for itself. A physician who places his name upon the panel thereby agrees to undertake to care for no more than five hundred families situated within a district to which he may be assigned, as at present there is no provision which permits him a statewide freedom of choice.

Carried to its logical conclusion, this would mean that such a man would be absolutely limited under the Act to a practice consisting of not more than five hundred families within certain definite boundaries and with no means of being compensated at the prevailing rate of professional pay. If the funds happen to be flush and he turned in a report of two hundred visits for the month he might get \$1.31 a visit; but if they were short he might get 50c a visit. It is obvious to any man who thinks, that such an arrangement is prohibitive and the self respecting physician will refuse to bind himself to any such shortsighted scheme. In consequence, the men who will accept work under the Act will eventually degenerate into the class of partial incompetents that it is the plea of the gentlemen who have framed this bill they wish to avoid. Furthermore, the incentive for self improvement will be done away with. Young men will be turned away from medicine. The ranks of well qualified practitioners will be depleted and unless the State steps in, chooses new material and educates its own doctors, medicine as a science will begin to recede and deteriorate.

Again, the failure of the bill to limit the benefits to those whose income is unquestionably inadequate for their needs will undoubtedly lead to abuses. Nothing should be free in this world except air and sunshine and an equal chance for everybody. The things that are free are the things that are neglected. People value what they get by what they pay for it and this is probably more true of medicine than of any other thing in life.

The remedy is concerted action on the part of all physicians, dentists and druggists of the State, and a positive refusal to serve in any capacity under any act which does not guarantee them their personal rights and a controlling voice in the management of the funds. Without the doctors, the Act is so much waste paper. This country owes enough to its medical practitioners in return for the part that they have taken in the war to guarantee that nothing shall be forced upon them to their disadvantage. If they do not stand together to defeat this measure and others like it, they will pay bitterly for their disloyalty in the end; and to those who may be tempted by the prospects of a fixed salary from the State, be it known that disloyalty at this time means not only incomparable harm to the entire profession of medicine, but a degree of moral turpitude the far reaching effects of which will grow more and more apparent with every remorseful year.

H. G. W.

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE *LONG ISLAND MEDICAL JOURNAL*

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1919, No. 4

APRIL, 1919

2 PAGES

SURGICAL TREATMENT, VOL. 2

SURGICAL TREATMENT. A Practical Treatise on the Therapy of Surgical Diseases for the Use of Practitioners and Students of Surgery. By James Peter Warbasse, M.D. In three volumes. Volume 2, Philadelphia and London, W. B. Saunders Company, 1918. 829 pp. 761 Illustrations. 8vo. Cloth, \$30.00 per set.

The second volume of Warbasse's book on Surgical Treatment has promptly followed Volume I. The general merits of the treatise were commented upon in the review of the first volume. The present volume maintains the same standard of thoroughness of treatment, clearness of statement and judicious conservatism in the selection of material which was characteristic of the previous volume. The great cavities of the body, the head and spinal canal, the thorax and the abdomen, form the subject of this present volume and hence contain the marrow of modern surgery.

The position taken by the author as to the treatment of spontaneous cerebral apoplexy is worthy of quoting. He says:

"The indications for surgical treatment are those of pressure. Medical treatment offers much for the prophylaxis of this disease, but little for its treatment. Surgery can do much for this condition which in every respect is a surgical lesion. The blood coagulates quickly and the hemorrhage is usually ended in a short time. The progressive symptoms which continue are most probably the gradual changes, such as the development of a zone of edema, due to pressure. It is doubtful if the routine measure to lower the blood pressure in these cases are of value; it is certain that they often do harm. The rational treatment of this condition must be worked out, not by combating the lifesaving mechanism for regulating the systemic blood pressure, but by relieving the increasing intra-cranial pressure due to the presence of a foreign body.

"Given a case of spontaneous apoplexy with stupor, or coma, flaccidity of the

muscles of one side of the body and high blood pressure in response to intra-cranial pressure, and the other characteristic signs of hemorrhage in the internal capsule on the side of the brain opposite to that of the paralyzed muscles, the surgeon may expose the brain and relieve the pressure by draining the clot focus. The skull should be opened by trephine or burr just below or above the squamous suture. The dura is opened by crucial incision. The opening should be made sufficiently large to expose the lower end of the fissure of Rolando, the lower ends of the two central convolutions, and the fissure of Sylvius. The brain will often show edema or other local evidence of injection and hemorrhage. If not, it should be entered at the prominent rounded eminence of the lower end of the posterior central convolution just behind the lower end of the Rolandic fissure and above the Sylvian fissure. A trocar and canula of small size should be entered in a downward and inward direction. It should pass sufficiently above the fissure of Sylvius to avoid the island of Reil. By inserting the instrument in the middle of a convolution no vessels are injured. The apoplectic cloth should be encountered within two inches of the surface. A soft roll of rubber tissue to serve as a rubber drainage tube should be inserted through the canula. The clot may be expected to protrude itself through the tube.

"Because of the intracranial pressure there may be some troublesome bulging of the brain after the dura is opened. This may be overcome by elevating the head of the table. Lumbar puncture may be required. As soon as the dura is opened the decompression should show itself in improvement in the patient's general condition. The results of these operations have not been collected sufficiently to place the operation upon a definite surgical basis. Most of them have been done too late when, as a result of laryngeal paralysis, inhalation pneumonia has been engrafted. Others have been attempted when the compression had exhausted the vasoregu-

lator centres. But it can be safely predicted that, as a result of experimental work which is now being done, the operation will become an accepted surgical procedure."

Such a formal suggestion as to surgical interference in cases of the cerebral hemorrhage of apoplexy is certainly up-to-date surgery and is quite consistent with modern ideas of pathology and treatment. We congratulate the author upon having given the procedure a detailed description and fixed standing in the surgery of the head.

For the relief of intracranial pressure, as in cases attended with meningeal effusion, the imperative indication to provide drainage is recognized and various methods of meeting the indication are fully described, such as lumbar puncture, tapping of the ventricles and drainage of the sub-arachnoid spaces at the cerebro-medullary angle and lumbar laminectomy. As a whole, the section devoted to the treatment of injuries and diseases of the head is most admirable and comprehensive.

It is not necessary to present any detailed analysis of all the sections of this admirable volume. It maintains fully the standard set in Volume I, and will be accepted by all as a trustworthy guide to the resources of surgery at the present time.

L. S. P.

OBSTETRICS.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A. M., M. D. Third Edition, thoroughly revised. Phila. & London, W. B. Saunders Company, 1918. 1089 pp. 949 Illustrations, 187 of them in colors. Large 8vo. Cloth, \$8.50.

The third edition of Dr. DeLee's treatise on Obstetrics should receive from the Medical Profession the same hearty welcome accorded the previous editions.

The book has been thoroughly reviewed by the author and, as would be expected in a work of such excellence, but few changes were found to be necessary. Very little new material has been added, but several of the chapters have been somewhat enlarged. The use of the rectal examination as a routine during the progress of labor has been given more prominence and the sections dealing with obstetric anesthesia and analgesia, perineorrhaphy, cesarean section, and the treatment of contracted pelvis have been expanded.

A few new illustrations have been added and they are of the same high order as are those continued from the previous editions. The book still stands as a most valuable aid and guide to the student and practitioner of this art.

DISEASES OF THE NOSE, THROAT AND EAR.

A MANUAL OF DISEASES OF THE NOSE, THROAT, AND EAR. By E. B. Gleason, M. D., LL. D. Fourth Edition, thoroughly revised. Philadelphia and London, W. B. Saunders Company, 1918. 616 pp. 212 Illustrations. 12mo. Cloth, \$3.00.

In the fourth edition of "A Manual of Diseases of the Nose, Throat and Ear" by Dr. E. B. Gleason, the author states in the opening paragraph of the preface: "This manual was written to supply students and general practitioners with the essential facts of Rhinology, Laryngology and Otology."

The essential facts only are given but they are given in a clear, concise manner in the six hundred and sixteen pages and the large field of oto-laryngology is very fully covered.

The author gives the etiology, pathology, symptomatology and treatment of each disease. Many of the conflicting views as to the treatment are omitted and only those that are generally accepted and tried are given. Emphasis is placed upon treatment other than operative if that treatment will be of benefit in that particular case.

The book is brought up to date and outlines the recent work on such subjects as focal infection from the tonsils, testing the inner ear and its connections in the central nervous system, labyrinthitis and its treatment and intracranial complications from the ear.

The methods of examination are gone into in detail, a part of the work that will be of especial value to the beginner. There are a large number of illustrations, many of them from the author's specimens, and in the back of the book a number of pages are devoted to formulas. The index, a valuable part of any text book is a complete one and the paper and binding are good.

The book was written for the student and general practitioner and the man doing special work only will miss many of the details and operations found in a larger work.



Society Transactions



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Annual open meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Wednesday, February 5th, 1919, at 8:30 p. m. The President, Joseph P. Murphy, M. D., in the Chair.

Program

CASE REPORTS:

1. Intestinal Obstruction.
 - A. Due to Meckel's Diverticulum.
 - B. At the Sigmoid (Delatour Type).
2. Gall Bladder Disease.
 - A. With Gangrenous Pancreatitis.
 - B. With Acute Pancreatitis.
3. Empyema of the Gall Bladder.
4. Cholecystitis Papillomatosa.
5. Aneurysm of the Hepatic Artery.
Lantern Slides, 20 Minutes.

Russell S. Fowler, M. D.

6. Ileo-Colectomy.
7. Congenital Atresia of the Intestine.
8. Open Reduction of Fracture of the Surgical Neck of the Humerus, as Standardized at the Long Island College Hospital.
Lantern Slides, 20 Minutes.

J. Sherman Wight, M. D.

ADDRESS:

"War as a Teacher of Medicine and Surgery."

*George David Stewart, M. D.,
of Manhattan.*

JOSEPH P. MURPHY, M. D., President.

FRANK D. JENNINGS, M. D., Secretary.
J. Sherman Wight, M. D.

CASE I. A. E. 7 years old, October 15, 1918. Pain in the right lower quadrant of abdomen with vomiting. The child was attending school when she was suddenly seized with general abdominal pain and was sent home. She was put to bed and an ice-bag was applied to the abdomen. She vomited and the pain became worse. She was removed to the hospital.

Examination showed temperature 100; pulse 90. Child restless and vomiting. No scars nor eruptions on the body. No discharge from the ears or nose. No conjunctivitis. Pupils react normally and well dilated. Teeth in good condition. Tongue heavily coated. Tonsils normal. No glandular enlargements. No tumors and no abnormal pulsations. No stiffness nor spinal curvatures. Heart and lungs negative. Abdomen: Rigidity and tenderness throughout. Some peristaltic movement. There is a sense of resistance suggestive of a mass in the right lower quadrant. This is confirmed by rectal examination.

The urine analysis was negative and the phthalein was 65%. The blood pressure was 100/80. Hb. was 80%. R. B. C. 4,170,000 and the W. B. C. 30,800. Poly nuclears 80%.

The abdomen was opened the same day through a right rectus incision and a ruptured gangrenous appendix was removed. It was buried in a mass of inflammatory tissue matting the caecum, ileum and omentum together. The wound was drained and the child returned to the ward and put in the Fowler position. The wound discharged a large amount of foul smelling pus, the child became thin and toxic. The pulse became weak and rapid, the child developed acidosis which was treated with soda bicarbonate.

October 25th, the child had become thin and emaciated and developed an intestinal obstruction. An incision was made in the median line and the obstruction was found to be due to an ulcerated mass made up of the terminal ileum and caecum. The proximal ileum was drawn into the wound and sutured and opened, establishing a fistula with a rubber tube in place. The old wound was still draining. The child continued to lose flesh and did not begin to gain until about the first of November. She continued to improve, gaining in weight, but occasionally she would have abdominal pain due to temporary obstruction. These attacks of intestinal colic became less frequent and she was allowed to get out of bed. A considerable portion of bowel was drawn out of the wound at the time of the last operation in order to bring all the mobile, ulcerated intestine out of the abdomen as these areas showed signs of impending perforation. The child had become sufficiently strong on December 6th to stand another operation. An incision was made in the left rectus and sigmoid was drawn up into the wound together with the ileum proximal to the fecal fistula. The ileum was incised and closed and implanted in the sigmoid by lateral anastomosis. Adhesions were extensive throughout the right half of the abdomen. The wound was closed and the child was put to bed in the Fowler position.

She made a good recovery except that she had occasional attacks of abdominal pain with temporary obstruction from peritonitis. She soon improved rapidly and the wound healed by primary union, and by the 18th she was out of bed. She gained in weight. She had repeated attacks of colic from obstruction in the upper abdomen and vomited occasionally so that she had to go back to bed.

On January 10, 1919, it became necessary to do another operation to relieve the constantly recurring symptoms of obstruction. An incision was made in the median line freeing the protruding mass of bowel. This, together with the caecum and ascending colon, were excised just beyond the hepatic flexure. The remaining small intestine was everywhere bound with inflammatory adhesions which involved the omentum and large intestine as well. These coils of

intestines were separated and the peritoneum had been denuded, were covered with omental grafts. The child was put to bed and again treated in the Fowler position. She made a good recovery up to the 21st of January, when she began to have colicky pain and symptoms of obstruction. She partly overcame this obstruction but this recurred with vomiting on January 29th when the abdomen was opened and the condition was found to be inoperable on account of the extensive adhesions and ulcerations of the small bowel.

The accompanying plates show the obstruction following the appendectomy and the ileosigmoidostomy.

The main efforts were directed to overcome the adhesions following an ulcerative peritonitis. As long as these were successful the child would recover. However, unfortunately they recurred sooner or later on account of the active peritoneal inflammation and finally exhausted the child.

It has been our practice at the Long Island College Hospital to make a complete colon plating of all post-appendectomies that have shown extensive adhesions at the time of operation, and if there is hyper-fixation of either caecum or ileum, subject them to a second operation to free the adhesions, and apply omental grafts to the denuded bowel to prevent their recurrence. All these cases that have been followed up have remained free from complications.

The accompanying plates will show the result of grafts.

CASE II. Baby K. two days old, June 17, 1918. Vomits all food taken. Examination shows a fairly well developed child; abdomen somewhat distended with the stomach occupying three-quarters of its area. Heart and lungs were normal and she showed no congenital defects. The anal orifice was patent; the rectum received a small catheter; a small tube entered the stomach. Complete gastro-intestinal and colon plating showed an obstruction within a short distance of the stomach. It also showed the rectum patent to the sigmoid only. A median incision was made in the abdomen. There was atresia of both the small and large bowel. A double opening was made and tubes were passed proximally and distally into the jejunum on the proximal side of the obstruction and the intestine was sewed into the abdominal wound. The child lived for about twenty-four hours and died.

This is the third case of atresia that has come to our attention. The other two had a patent bowel up to the terminal ileum, and, although an enterostomy was done, they died.

The accompanying plates show the X-Ray pictures of the gastro-intestinal tract and a drawing of it after removal.

CASE III. M. F. fourteen years old, January 2, 1919. Pain, swelling and loss of motion at the left shoulder. He was hit by an automobile while skating and thrown down on his left shoulder. He was taken to a physician and had a temporary splint applied.

Examination showed the left shoulder discolored, swollen and painful to touch and manipulation. There is definite crepitus and mobility at the surgical neck. The left humerus was an inch shorter than the right. An X-Ray picture shows a fracture at the surgical neck with over-riding. His urine was negative; his phthalein was 65%. His heart and lungs were normal. There was no discharge from the ears or nose. His tonsils were normal, and his teeth and gums were free from infection.

January 3, 1919, a vertical incision 6" long was made from the acromion process downward along the mesial border of the deltoid, and carried down to the bone. This exposed the fragments of bone. They were replaced and clamped in a pair of angular Wight bone forceps. A hole was drilled obliquely through the proximal end of the distal fragment upward and inward, into the distal fragment penetrating the head. A long screw was inserted into this hole. Another hole was drilled through the opposed fragments and a chronic gut suture was inserted and tied. The wound was closed burying the screw. A plaster spica was applied to the arm and shoulder.

January 24, 1919, the spica was taken off and the screw was removed, passive motion was started. The boy left the hospital, February 3rd using his arm freely.

We find it necessary to wait a week to ten days before doing this open reduction to allow complete reaction of the tissues in the neighborhood of the fracture. The screw is always removed in three weeks and passive motion begun. It is necessary to begin passive motion as early as possible in cases of fracture near a joint.

The accompanying plates show fractures at the surgical neck of the humerus, the fixation of the fragments with screws, and the final results.

Russell S. Fowler, M. D., F. A. C. S.

POSITION OF THE PATIENT FOR GALL BLADDER OPERATION. To render the parts to be subjected to operative attack *readily* accessible it is essential that the chest and shoulders of the patient be upon a higher plane than the abdomen. This is accomplished by elevating the upper portion of the patient from the shoulders to the level of the ensiform to a height of four to six inches. This may be accomplished by a special framework or by air cushions, or preferably by an elevator attachment on the table in conjunction with ordinary soft pillows. No complaint of backache has been made in patients so elevated.

The first slide (Fig. 1) represents the gall bladder position as used by me for the last three years. I want to direct your attention particularly to the position on the table of the so-called kidney elevator. Instead of being half way down the table, where it usually is and where it is hardly used, except in kidney cases, it is placed three-quarters way up and may be used for gall bladder or kidney cases.

Fig. 2 shows the patient in position, unanesthetized, a natural photograph, showing the curve which is desired to be produced. Some two years or more ago I called attention to this position here and have had occasion to demonstrate it to some of you. It makes access to the gall bladder so very much easier that I thought I would refresh your minds about it. The patient is placed in position before being anesthetized and inquiry always develops the fact that the patient is comfortable in this position. If discomfort is complained of the position has not been properly made. Patients in this position require less anesthesia and take a better anesthesia than in the recumbent position.



Fig. 1. Table prepared for gall bladder patient.



Fig. 2. Position for gall bladder operation.

Cholecystitis papillomatosa (Figs. 3, 4 and 5). I have found papillomas in three gall bladders out of a total of about 1500 submitted to pathological examination; once associated with cholecystitis catarrhalis acuta, once with cholecystitis catarrhalis chronica and once with cholecystitis chronica. There is no reason why it should not be found in an otherwise normal gall bladder, or why a gall bladder the seat of a papilloma should not also be subject to any variety of inflammation. These slides are shown simply on account of the rarity of the condition.

ABDOMINAL SINUS DUE TO APPENDICITIS. W. H. H. (Fig. 6) 5570, G. G., female, aged 29, had four years ago a sharp pain in the right lower abdominal quadrant lasting three days. This pain recurred every three or four months. Nine months ago when eight months pregnant she had an attack which lasted throughout the balance of her pregnancy. An abscess in the abdominal wall was opened after a normal delivery. This has healed from time to time and reopened and has been incised and curetted occasionally. The discharge consisted of pus and at times a brownish material having a fecal odor. I first saw her when the trouble had been in existence about nine months. X-ray examination was negative.

The sinus was injected with methylin blue, dissected out, the peritoneal cavity being entered and the appendix, attached to the abdominal wall, was removed. Complete wound closure. Primary union.



Fig. 3. Cholecystitis Papillomatosa. Gross specimen.



Fig. 4. Cholecystitis Papillomatosa associated with Cholecystitis Chronica.
Note the broad base of the papilloma.

INTESTINAL OBSTRUCTION FROM MECKEL'S DIVERTICULUM. M. E. H. 70791, P. H., female age 33, referred by Dr. William Slaughter, had suffered recurring attacks of severe abdominal cramps accompanied by excessive vomiting and lasting for several days at infrequent intervals since her sixteenth year. Eight years ago while in another city her appendix was removed through a very small incision. It was said by the operator to pop directly into the incision. No exploration was made. No relief of her previous condition followed. When I first saw her she was in the third day of a severe attack and had fecal vomiting. Exploratory operation revealed the condition shown in the illustration (Fig. 7), a rolling up of the small intestine due to an inflamed Meckel's diverticulum. The gut was unrolled, the diverticulum removed and a suture was placed in the opposite leaf of the mesentery in an attempt to prevent the recurrence of the rolling up process. Uneventful recovery except for a late appearing infection of the wound.



Fig. 5. Cholecystitis Papillomatosa associated with Cholecystitis Catarrhalis Chronica. Note the slender base of the papilloma.

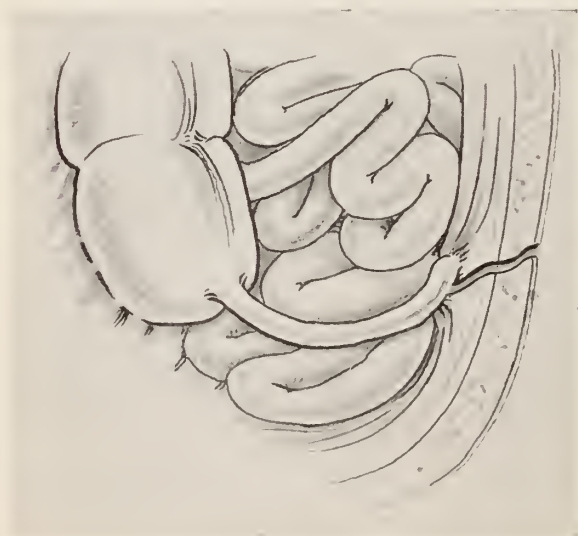


Fig. 6. Abdominal Sinus due to Appendicitis.

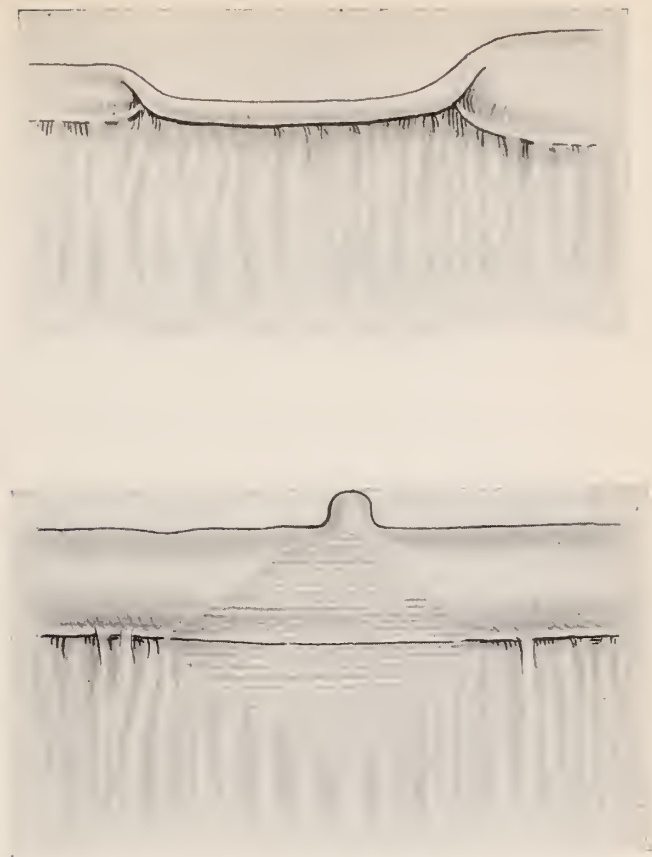


Fig. 7. Intestinal Obstruction due to Meckel's Diverticulum.

INTESTINAL OBSTRUCTION BY BAND. W. H. H. 6602, F. S., male, aged 17, referred by Dr. Harry Meyersburg, had an attack of appendicitis one year ago for which he refused operation. Three days ago he was seized with recurrent abdominal cramps, vomiting and obstipation. Enemas failed to relieve. When I saw him there was fecal vomiting. Laparotomy revealed the mechanical condition illustrated (Fig. 8). The appendix was subacutely inflamed. The condition was demonstrated, the band removed, the appendix removed. The gut above the constriction was parietic. The parietic gut was opened and the entire small intestinal contents above milked down and expressed through the intestinal opening which was then closed. Uneventful recovery.

INTESTINAL OBSTRUCTION AT THE SIGMOID (Delatour type). W. H. H., 6325, L. Z., female, aged 62, referred by Dr. Hugo Lange. Except for the usual diseases of childhood had never been ill. Bowels always regular. In the morning she was suddenly seized

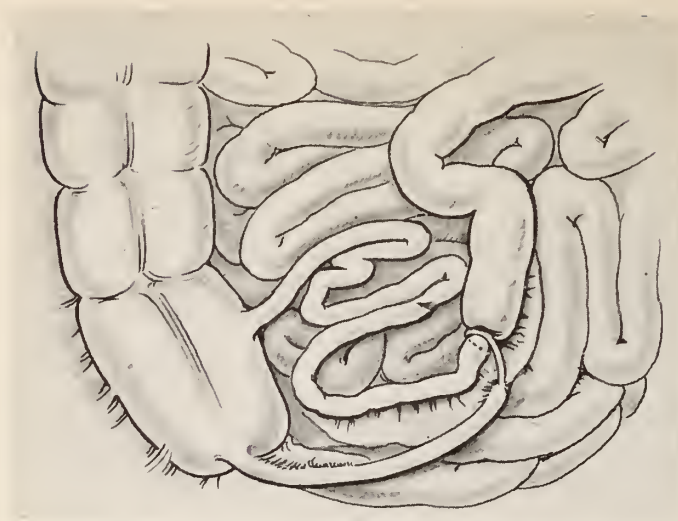


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with excruciating pain in the umbilical region, nausea and vomiting and eructation of gas. Repeated enemata failed to move the bowels or to give relief. I saw her in the afternoon. The pain was most intense in the lower left quadrant. Lavage resulted in the removal of a large amount of fluid having an intestinal odor. This was unusual in view of the short history of the case. Exploratory laparotomy revealed a kinking of the sigmoid as shown in the illustration (Fig. 9). This loop was tightly wedged in the pelvis. Adhesions



Fig. 9. Intestinal Obstruction, kinking of the Sigmoid.

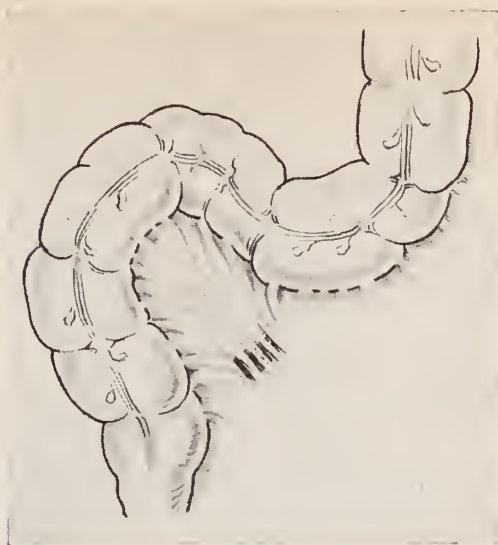


Fig. 10. Intestinal Obstruction, kinking of the Sigmoid. Note the scar tissue in the outer leaf of the mesentery.

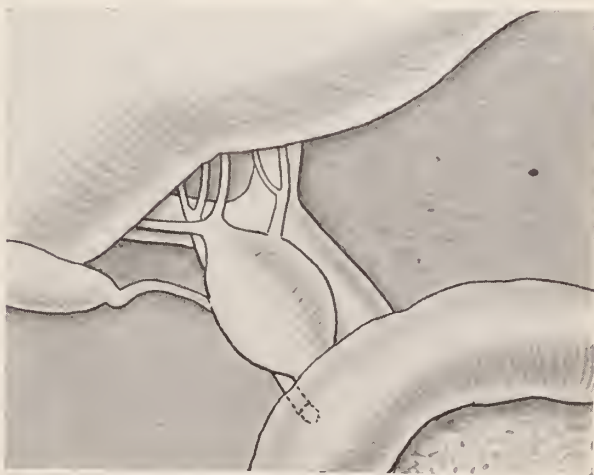


Fig. 11. Aneurysm of the Hepatic Artery.

on the outer layer of the mesentery of this portion of the gut were sectioned and the normal position of the sigmoid restored and maintained by suturing the loop to the lateral abdominal wall and to the broad ligament. Recovery uneventful except for slow wound healing.

A close scrutiny of the mesentery showed an old inflammatory process in the outer leaf of the mesentery, producing a contraction (Fig. 10); that is, the outer leaf of the mesentery was shorter than the inner leaf, and I believe this was responsible for the kinking at the two points which caused the angulation of the sigmoid.

ANEURYSM OF HEPATIC ARTERY. W. H. H., 6220, E. E., female, aged 69, five years ago had a sudden severe cramping pain in abdomen accompanied by belching and lasting for several days. This was repeated at intervals of a few months at first, gradually becoming more frequent and more recently accompanied by temporary jaundice. Operation disclosed a chronic cholecystitis with small arrow head stones (liver itinea) and gravel and detritus, a patent common duct, a somewhat sclerotic pancreas and an aneurysm of the hepatic artery about the size of the last joint of the thumb as illustrated (Fig. 11). The gall bladder was removed. Owing to the lack of collateral blood supply, there being no anomalies in this case, it was impossible to do anything for the aneurysm. Uneventful wound healing. Up to the present, nine weeks, no recurrence of pain. This is the longest period she has been without pain in the last two years. She is much improved and feels well, though naturally no cure can result.

Remarks. The diagnosis of aneurysm of the hepatic artery is practically impossible. Occurrence is rare. Villandre collected 41 cases of which 8 were operated. In no case was the diagnosis made prior to operation and at the operation itself the condition was only recognized in 4 cases (Habe, Alexander, Tuffier and Kehr).

Gaub reported a case in 1912 in which the diagnosis was confirmed by exploratory laparotomy. Treatment—if collateral circulation exists, ligature or arterio-plasty; otherwise nothing can be done. In this region anomalies are very numerous. In this particular case, unfortunately for the patient, there was no blood supply to the liver except through the aneurysm. In operating upon these cases, as well as repairing wounds of the hepatic artery, I wish again to call your attention to the use of rubber protected gastroenterostomy clamps in securing a dry field of operation.

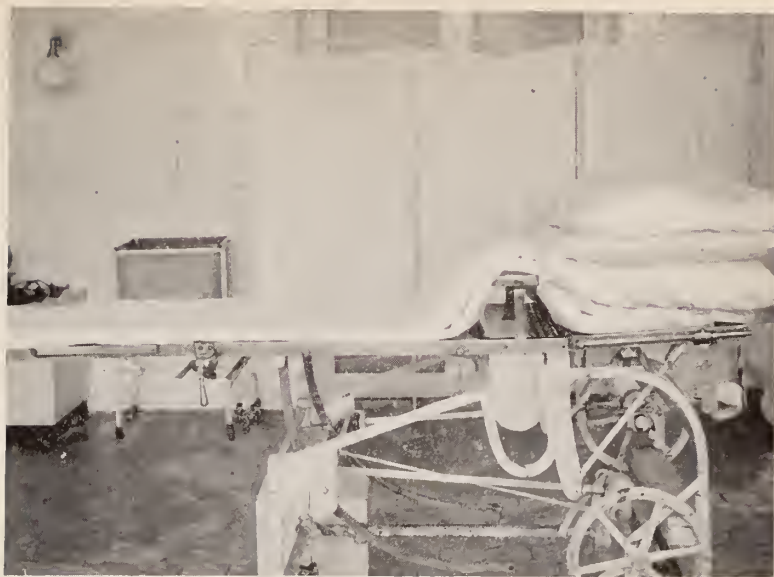


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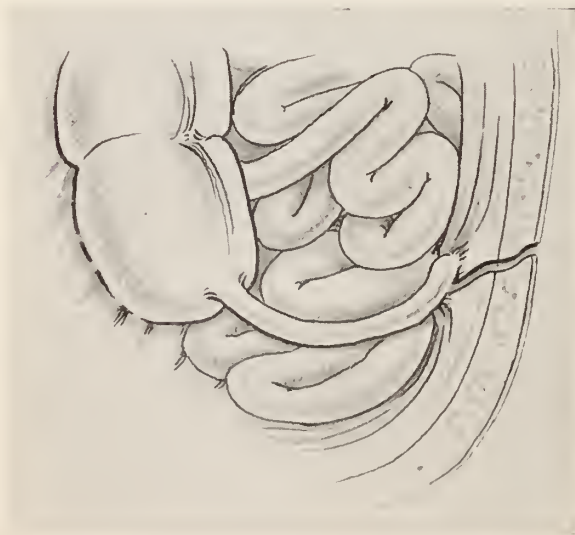


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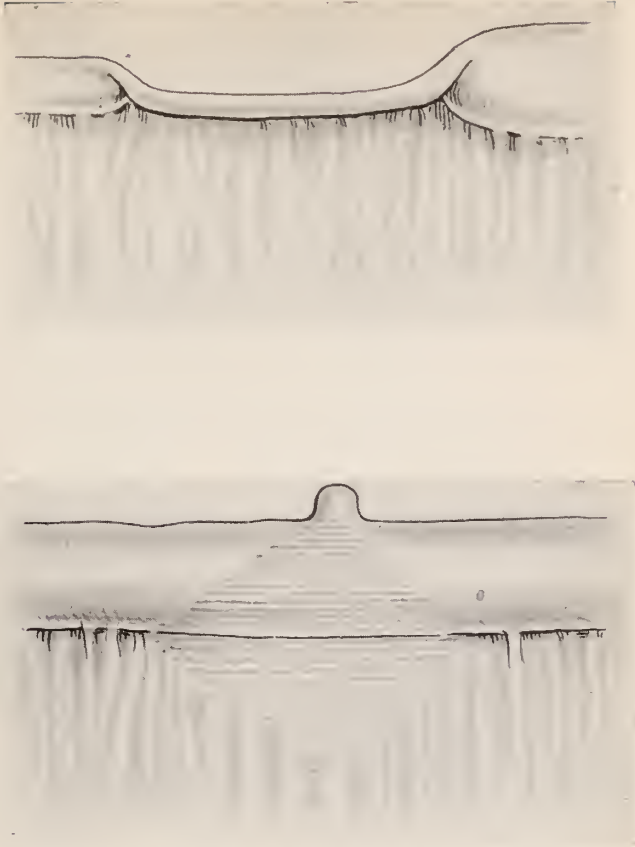


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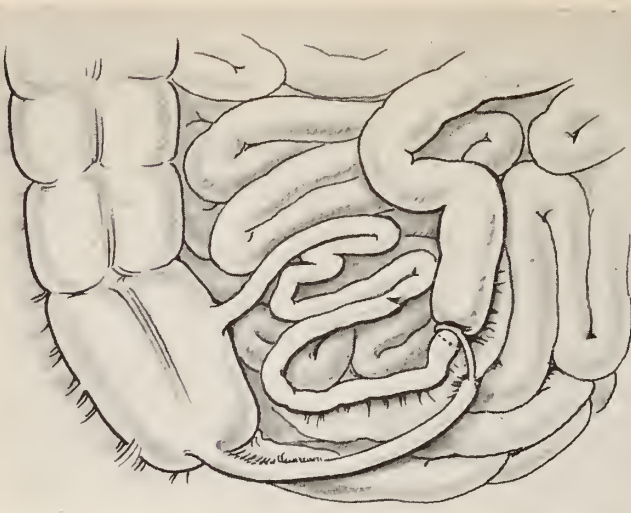


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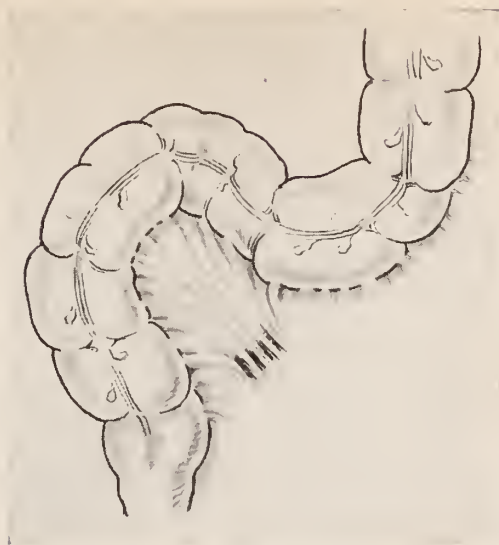


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ANEURYSM OF HEPATIC ARTERY. W. H. H., 6220, E. E., female, aged 69, five years ago had a sudden severe cramping pain in abdomen accompanied by belching and lasting for several days. This was repeated at intervals of a few months at first, gradually becoming more frequent and more recently accompanied by temporary jaundice. Operation disclosed a chronic cholecystitis with small arrow head stones (liver itinea) and gravel and detritus, a patent common duct, a somewhat sclerotic pancreas and an aneurysm of the hepatic artery about the size of the last joint of the thumb as illustrated (Fig. 11). The gall bladder was removed. Owing to the lack of collateral blood supply, there being no anomalies in this case, it was impossible to do anything for the aneurysm. Uneventful wound healing. Up to the present, nine weeks, no recurrence of pain. This is the longest period she has been without pain in the last two years. She is much improved and feels well, though naturally no cure can result.

Remarks. The diagnosis of aneurysm of the hepatic artery is practically impossible. Occurrence is rare. Villandre collected 41 cases of which 8 were operated. In no case was the diagnosis made prior to operation and at the operation itself the condition was only recognized in 4 cases (Habe, Alexander, Tuffier and Kehr).

Gaub reported a case in 1912 in which the diagnosis was confirmed by exploratory laparotomy. Treatment—if collateral circulation exists, ligature or arterio-plasty; otherwise nothing can be done. In this region anomalies are very numerous. In this particular case, unfortunately for the patient, there was no blood supply to the liver except through the aneurysm. In operating upon these cases, as well as repairing wounds of the hepatic artery, I wish again to call your attention to the use of rubber protected gastroenterostomy clamps in securing a dry field of operation.

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THE RELATION OF INFLUENZA TO BRONCHITIS AND TUBERCULOSIS.

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THE popular meaning of influenza is a particularly severe and acute "cold" or sore throat with such symptoms as running of the eyes, severe headache, pains in the back and limbs, loss of appetite, sleeplessness, muscular weakness and prostration.

But the absolute diagnosis of influenza is a difficult thing. It may be attempted on three separate lines: the epidemic, the bacteriological and the clinical. As influenza is usually an epidemic disease, the finding of the bacilli in such cases is, of course, diagnostic. Though presenting a great variety of symptoms, these cases habitually show certain features in common, the chief of these being sudden onset, great prostration and weakness, irregular fever and catarrh of some part of the respiratory tract. But when influenza is sporadic or endemic the diagnosis becomes more difficult, owing to the absence of the diagnostically important features of the epidemic form. Here the diagnosis must be made on bacteriological and clinical grounds, both of which are uncertain.

The bacillus of influenza was discovered by Pfeiffer in 1892, but as it is no longer found in many countries, its causal connection with influenza is doubtful.

Endemic influenza differs from the epidemic form in two important particulars: it is sporadic and therefore far less contagious; it is associated with Pfeiffer's bacillus in less than one half the cases. For this reason other organisms may be the infecting agents. Therefore the absence of Pfeiffer's bacillus does not disprove the diagnosis of influenza. The bacilli may be present for years in the sputa of patients who have had influenza and who are not carriers of the disease. Also, the presence of the bacillus does not indicate the presence of influenza, as the bacillus may exist in the sputum simply as a saprophyte.

Other bacilli closely resemble the bacillus of influenza culturally, morphologically and in their staining reactions. As the bacillus of influenza is not infectious for any species of animals except man, its differentiation by inoculation experiments is, of course, impossible. Similar bacilli have been found as saprophytes or epiphytes in pu-

treifying protein, in decomposing human sputum, in tuberculous cavities, in bronchiectasis and in the pus of middle ear disease. Jochmann has found an identical bacillus which he calls the bacillus pertussis, almost constantly in whooping cough and in the throats of children with scarlet fever and chicken pox. In these cases either the bacilli are not true influenza bacilli, or they are true Pfeiffer's bacilli existing as harmless saprophytes. All of which makes the bacteriological diagnosis of influenza an exceedingly difficult matter.

Jockmann and other bacteriologists advise the term "influenza" be used in a purely clinical sense and the disease diagnosed on clinical and not bacteriological grounds. But how far can it be diagnosed on clinical grounds alone? In a typical case the onset is abrupt, the temperature rapidly rises, often there is rigor or vomiting, severe frontal headache, aching pain in back and limbs, prostration quite out of proportion to the other physical signs, marked loss of appetite and catarrh of the eyes, nose, throat and bronchi. The pains and prostration are the most striking features. The fever is irregular in type, lasting from one to seven days, often falling off for a day or two. Relapses are common. Post-febrile neuralgia is common, affecting chiefly the supra-occipital, intercostal and sciatic nerves. Peripheral neuritis is rare. Serious complications are frequent, such as pneumonia, pleurisy, abscess or gangrene of the lung, meningitis, hemorrhagic enteritis and occasionally peripheral neuritis.

The influenza bacillus grows on no mucous membrane except that of the respiratory tract, and even there it remains mainly on the surface and without penetrating between or into the cells to any great extent.

To sum up: the diagnosis of influenza is easy in epidemics, with both bacteriological and clinical evidence, but very difficult when occurring endemically. The diagnosis must be made on clinical grounds for the most part, by the patient's description of his symptoms and by the signs and course of the attack. But identical symptoms may result from bacteria of several varieties and not the influenza bacillus alone.

RESULTS OF INQUIRIES

A total of 1058 patients were interrogated with a view to ascertaining how many had had influenza. They were divided into two classes: I. Those who previously had tuberculosis and, II. Those who had not, but who had simple bronchitis, with or without emphysema.

I. 416 cases of pulmonary tuberculosis:

That began with an attack of influenza.....	112
That had one attack or more of influenza after tuberculosis.....	122
In which it was uncertain which came first.....	30

Cases giving no history of influenza:

Early	55
Moderately advanced.....	66
Far advanced.....	31

II. Non-tuberculous cases:

Of chronic bronchitis with or without emphysema beginning with influenza.....	62
Ditto, with influenza during their course.....	306
Of fibrosis of one lung beginning with influenza.....	3
Of morbus cordis with attacks of influenza.....	7
Of bronchitis with enlarged tonsils or adenoids and attacks of influenza.....	19
Of chronic bronchitis and emphysema without any history of influenza.....	245

Out of these 1058 patients, 661 or 62% stated that they had once had one or more attacks of influenza. But as the bacillus of influenza is rarely found and is with difficulty grown on artificial media, it seems improbable that it could be the sole cause of these attacks of so-called "influenza." It is the opinion of the author that in a great many cases the diagnosis of pulmonary tuberculosis should have been made.

Group I. Those who previously had tuberculosis. In the majority of these 112 cases there is no doubt in the mind of the author but that the activating organism was the tubercle bacillus and that the illness itself was not influenza at all but tuberculosis. Of course, there is a connection existing between influenza and tuberculosis, and the mortality due to phthisis increases during an epidemic of influenza and is lowered afterward. The author believes that, instead of influenza predisposing to tuberculosis of the lungs, influenza often really *is* tuberculosis.

Series 2 of group I includes 122 patients who had one or several attacks of influenza at a time subsequent to the probable onset of their tuberculosis. In these cases the influenza was associated either with a superadded attack of general bronchitis and the development of adventitious sounds all over the lungs and an increase in the sputum, or with the physical signs indicating a sudden spread of the tuberculous disease in the lungs. In either case the patient becomes feverish or more feverish than he was before, suffers from headache and pains all over as he is apt to do in any acute infection of the respiratory tract, and diagnoses his case as one of "influenza."

Undoubtedly the bacterial cause of the influenza in tuberculous patients would generally be the bacillus tuberculosis, but this bacillus is by no means the only one present commonly in the sputum of tuberculous patients. Inman, in 1911, prepared cultures from the sputa of 101 patients with open tuberculosis and recovered the following bacteria from them:

Bacillus tuberculosis in all the.....	101
Micrococcus catarrhalis in.....	19
A staphylococcus in.....	16
Friedlander's bacillus in.....	6
A streptococcus in.....	6

If it is true that many cases of "influenza" are really cases of tuberculous infection, it is clear that the longer a case of pulmonary tuberculosis goes on the more likely it is to develop "influenza."

Group II. Non-tuberculous cases with influenza. In these it would seem probable that the attacks of acute bronchitis were set up by an acute infection with one or more of these various bacteria,

viz; the pneumococcus, Friedlander's bacillus, *M. catarrhalis* and a staphylococcus but not by the bacillus of influenza.

CONCLUSIONS

The diagnosis of influenza should not be made unless in the presence of an epidemic or unless the bacillus influenzae can be isolated in pure culture from the patient's sputum. The bacteria which seem to cause most of the so-called "influenza" are the tubercle bacillus, the pneumococcus, micrococcus catarrhalis, staphylococcus and streptococcus. To diagnose influenza rashly and readily is to overlook the early stages of pulmonary tuberculosis. In 112 out of 416 unselected cases of pulmonary tuberculosis the onset of the disease coincided with an attack of influenza. One ought to make sure that pulmonary tuberculosis has been excluded before making a diagnosis of "influenza" or "influenzal bronchitis."

MEDICAL RECONSTRUCTION.

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THE world is in a state of revolution, in which the conflict is between the interests of property and the interests of labor. We cannot estimate the position of the medical profession in this seething caldron of changes unless we understand the fundamentals of economics which are involved. And we cannot grasp these unless we approach the subject with an open and impartial mind. Dentistry, nursing and other health agencies are here understood to be embraced with the medical profession.

The war, it is obvious, has made this struggle acute. Labor has realized as never before the power of property as a war making force. The social system which produces such horrors, labor characterizes as wrong. The profit-making motive has been fully exposed during the war. The people who suffer the most from economic maladjustment have caught the vision of the possibilities of a better society. They seem determined to attain it. This spells revolution, because the controlling influences do not desire a fundamental change.

The recognition of two important facts, of which the discerning have long been cognizant, is essential for an understanding of the situation. One is that the best interests of the people are better served when commodities are produced and distributed and labor performed as a social enterprise directly for service, than when these functions are carried on by private interests for private profit. The other is that labor, which means useful service by hand and brain, must be the key to the attainment of the good things of life. These are the two conditions as the basis of the present conflict in society, and although their understanding has long been kept from the masses of the people, they are now being grasped.

Labor has discovered certain other simple facts. It realizes that trade unionism does not solve the problem. It has discovered that increased wages mean increased cost of living so long as the profit motive controls industry. It also has learned from the latest statistics that practically all of the property in the United States belongs to one-tenth, or at the most to one-fifth of the people; that sixty-five per cent of the people own only five per cent of the property; that two per cent of the people possess over sixty per cent of the national wealth; that this concentration of the property of the country in fewer hands is increasing; and that a very small group of financiers among this two per cent, virtually control the situation. This condition prevails in all industrial countries. Whether the doctor approves of this tendency or not, Labor does not like it, and Labor means the large majority of the population.

Whether we welcome the advent of the acute stage of the class-struggle or no, it is here. Whether we approve or disapprove of the premises upon which it is based, our own ignorance or superstitions will not alter the situation one jot. The important thing is for the medical profession to grasp the facts and put itself in harmony with the currents of progress. The unfortunate thing is that most of the medical profession have not grasped the facts and consequently are not in a position to put themselves on the side of progress. These two mistakes are particularly unfortunate because the right is ultimately going to prevail; and to be on the losing side in the great conflict now confronting us means disaster.

The doctor prefers to regard himself as a tradesman or financier rather than as a workingman. His preferences are with property rather than with labor. This is natural and inevitable. He is not responsible for it. Society compels it. The doctor prefers to drive up in front of the abode of the rich and to have the door tardily opened by a butler rather than to walk up the stairs of a tenement and find the door ajar. He is justified because the first means more income for himself; and more income means better access to the joys of life, and that is what everyone should want. He is in business because his knowledge, his skill, his reputation and his manners are his stock, which he barter in competition with his fellows. His profession differentiates itself from that of labor in that the leaders of medicine desire that the present economic system shall continue, while the leaders of labor desire that it shall not.

The natural affiliations of the doctor are with those of affluence. He is found in the club. He reads conservative publications. He casts his lot with the vested interests of property. His ethical sense is flattered by the praise of the parson who calls him a ministering angel and discourses to him of his self-sacrifice. This is his manna. He resents honest and scientific discussion of the economic circumstances by which he is enmeshed, a helpless victim of a vast social system in which he plays but a small part. This may be illustrated by the fact that I have brought down upon my head a storm of indignant protest from my colleagues in a medical meeting for saying that the rich man gets better medical treatment than the poor man. The protest was not so much an expression of ignorance as it was of superstition.

The hope of the medical profession lies in awakening to the

burning facts which confront it, recognizing the truth even though it be disagreeable, and setting itself in line with the onward current of events which is sweeping aside the old and out-worn conceptions. In order to do this it must start its schooling at the beginning. There is one hard lesson first to be learned. This is the lesson:

The world is not perfect. It is quite imperfect. To make it better requires that there shall be changes in the present social system. The people who most eagerly want those changes are the poor, the unlettered, the exploited, the victims of the bad features of the present economic and political regime. The loudest call for reconstruction comes from the proletariat. This has always been so. All great fundamental and revolutionary reforms have come in response to the demand of the proletariat. The ranks of the poor and oppressed have furnished the martyrs who have moved the world forward. On the other hand the rich and the cultured, the people who have the good things, are the class which is best satisfied with the things as they are. They least desire change. They supply the forces to prevent change. They are willing to feed the poor, to entertain the weary, to reform the prostitute, to heal the sick, to cleanse the slums, to do everything in a word to make it easy for others to be poor. The function of charity is to salve over the symptoms of a bad social disease. The privileged rich will do everything but cure the disease. Their charity is like that of the man who cuts off his dog's tail to make soup; and after eating the soup gives the dog the bones. Charity gives the poor nothing that is not already theirs by a higher right. Reforms and reformers placate the ill but abstain from attacking causes which produce them. The very existence of charity and reform signify that things are wrong.

The medical profession suffers the disadvantage that its alliance with the "better elements" of society denies it fundamental information. The press as an influence may be taken for example. The current periodicals, read by doctors, are owned and controlled by the propertied class. The average doctor's interpretation of modern industrial conditions is a reflection of the press, the purpose of which is to disparage the class-struggle, misinterpret the acts and sentiments of the proletariat, and glorify property and culture. This is particularly patent just now. Take the matter of the great strikes, the deportations of "undesirables," the suppression of freedom of speech, Bolshevism or the I. W. W.—in any of these questions involving the interests of the proletariat, the average doctor is worse than ignorant, he possesses mis-information. Moreover, information is best had from the humble sources which his cultural promptings scorn. Doctors do not read radical publications. They do not read those which interpret the standpoint of labor, such as the *Liberator* or the *New York Call*. How many read even the liberal press—such as *The Nation*, *The New Republic*, *The World Tomorrow*, *The Dial* or *The Survey*? So small a proportion as to be negligible. And still the doctor who does not get the benefit of the news at least through such mildly liberal publications but depends upon the conservative and reactionary press is without a true conception of the important world events. This is important because the time now is here when most of the capitalistic press is owned and controlled by big interests for the explicit purpose of

moulding public opinion. The results are as desired. One of the pathetic facts of American life is the gross and inexcusable ignorance of the so-called cultured class in matters of everyday history concerning labor and the class struggle. It is unfortunate that the doctor as he reads his morning paper actually imagines that he is getting the news.

The news and the interpretation of the news which the average doctor reads are in publications which are hostile to the movements which make for change of the present economic system, and leave him ignorant of the great movements which are bringing about these changes. Still ignorance does not stop these movements. Misrepresentation and coercion only give them strength.

Socialism, for example, which the New York newspapers a few years ago refused to discuss even falsely, now is spread in large type on the front pages every day. But the daily grist of falsehoods no more retards it than did the words of Canute stop the rising tide. Forbidding the use of the socialist flag, denying the use of halls to speakers, police coercions, exclusion of publications from the mails—such things are only the expressions of defeat. Wholesale arrests of people on account of what they think is the last refuge in the use of force to suppress ideas which can not be combated by other ideas. In the meantime free speech and common civil liberties are destroyed and liberty-loving people learn to look to the radical movements for the hope of their restoration.

The use of force to combat ideas is an evidence of the bankruptcy of the present political system. We now see municipalities, while doing utterly nothing to solve the problem of unemployment, calling out militia with Gatling guns to prevent the unemployed from holding meetings to discuss their problems.

Another important fact, which is playing a significant role in this social drama, is that economists for a long time and the thoughtful in the ranks of Labor now realize that there is no such thing as political democracy without industrial democracy. The privilege of voting at the polls if it were accorded to everybody can not constitute democracy so long as the machinery and tools of production, the means of life and livelihood, are owned by other people. In the industrial countries the people who own the machinery do not use it; the people who use it do not own it. To earn a livelihood the worker must work not with his own but with somebody's else tools. The owners of the property and of the wealth of the nation are the controlling influences. The economic forces which control the lives of the people control the politics.

In the seething changes now in progress Labor, representing the proletariat, is demanding more and more. And these demands will never cease until Labor gets everything. When Labor gets \$10 a day and a six-hour day, it will ask for \$20 a day and a three-hour day. And it will keep on making demands so long as things are produced for profit. There can be no peace under the present economic system. It means war always. So long as there are people who do not work, but live on the profits made out of the labor of others, Labor will never be satisfied. The existence of private interest, rent, profits of exchange, and dividends is the perpetual challenge. They mean that society maintains two classes—those who live by service and those who live by income from property.

Labor will either be reduced to slavery and kept in subjection

by force; or it will have all the wealth that it produces. The first means constant strife, for force is necessary to keep human beings in subjection and robbed of the products of their toil. The second only means peace. War will continue till Labor wins. There is no compromise that can long endure.

Our preferences should not blind our eyes to the facts. The facts are that Labor is winning. Misrepresentation, suppression and coercion may retard for a time the onward sweep of the inevitable, but they can not stay its ultimate triumph.

In this program of change the administration of health agencies takes its place along with other necessary work. There are two parties concerned as in all industry; the producer and the consumer. In medicine these are represented by the doctor and the patient. Both should organize for their own protection. The former are found organized in the labor union or syndicate and the latter in the state or in free society. When all capable people perform useful service, and when all labor is united in one big union, the producers and the consumers will be found to be the same, and the economic regeneration of society will be attained. Until that time comes, the man who consumes more than he produces must be regarded as a parasite to just that degree, and the man who produces more than he consumes must be regarded as exploited to just that degree.

The onward sweep of Socialism is always preceded by attempts at the adoption of the principles of Socialism by its enemies just before defeat overtakes them. For this reason we witness the spectacle of capitalistic governments plunging pell-mell into public ownership of public utilities, and placing the administration of such socialized enterprises in the hands of the very men who have always said that such a course was wrong and impracticable. But there is no help for them; either they must do it or the socialists will. The public must be placated, and politicians must keep ahead of the howling pack of radicals or they will be destroyed. And so we have the modern political hysteria which gives us the hybrid thing called "public ownership," which is best known as "state capitalism" or "stateism."

The medical profession is now caught in this current and is helpless because neither it nor the public are organized to meet it. Before the war 20 per cent of the doctors of England were in the employ of the Government. Now about 70 per cent are so employed, and the new insurance bill which is being prepared will increase that percentage. In response to this same impulse similar bills are in course of preparation to be presented to the several legislatures in the United States. Such legislation begins in a mild way but ultimately the end is state control of the doctors. It means that the doctor will receive a fixed stipend for taking care of a panel of so many families. The doctors in England fought against this act, but they had no organization capable of meeting the situation. The result was that, although they resisted, they were practically commandeered and confiscated by the government.

The same fate awaits the medical profession here. As it is now constituted it lacks solidarity. It goes before legislative bodies with its protests; its program consists of obstruction and negation; it has no constructive alternative to offer; and consequently it fails utterly. It fails because it has not been wise in securing the funda-

mental knowledge of economics, and because it has not used such knowledge to put itself in harmony with the world currents of progress. It has been the sycophant to property, and failed to realize that its interests are with the workers.

The revolution is in progress, and Labor will be found gaining more and more advantage with each change in the tide of events. The medical profession now presents the spectacle of standing with capitalism with no constructive alternative to offer. The program which ultimately will prevail is that which emanates from the radical Labor Movement. Wishing will not make it otherwise. Labor holds the key, stands at the source of life, and occupies the strategic position. It can win by folding its arms.

Should the medical profession decide to interest itself in the economic determinism which controls it, it will make itself amenable to development in several different lines. In the future of medical practice are five possible economic phases. These are: medicine (1) under individualistic economic competition, (2) under stateism, (3) under guild socialism, (4) under co-operation, and under (5) labor organization or syndicalism.

1. *Medicine under individualistic economic competition* now approaches the end of its dominance. In Europe it is becoming obsolete. A system which has denied the doctor the privilege of thinking solely of perfecting himself in his art and doing the best possible thing for each patient who comes to his hands, but has compelled him to make these things secondary to earning a livelihood and to presenting the evidences of prosperity, can in the nature of things be only a temporary expedient, if humanity is to advance. This is the dying system which the American profession still hopes to keep alive, because it does not realize that it is a decadent system. The isolated, individualistic physician should always exist and be welcome; but the majority of doctors are destined to be removed from competitive practice.

2. *The administration of health agencies by the political state* (stateism) had already made much headway before the war, as expressed by such organizations as municipal and state departments of health, their clinics and hospitals, and state insurance and medical care of the sick. During the war it made still greater progress. Not only has medical attention been provided more largely for the civil population, but twenty million men under arms were freed from the necessity of seeking the private doctor for aid, and were given medical, surgical and nursing attention by the governments whose employees they had become. This is the system which is now being put into practice by governments the world over, and will prevail unless the co-operative movement or the organized medical profession establish something better.

It offers very serious disadvantages in the form of bureaucracy and political control. It is bad not because of inherent weakness of the system, but because it must at first be administered by the capitalistic political state which is poorly adapted to the function. It is a transitional phase which is coming because it offers advantages over the passing competitive system.

3. *Guild Socialism* stands midway between stateism and syndicalism. It means that the state shall own the hospitals, but the doctors, nurses and other workers shall organize to administer them. In England this movement has made great progress in the pub-

lic esteem because the administration of the Insurance Act and the oppressive development of bureaucracy during the war have magnified the deficiencies of stateism, and the syndicalist principle is seen to offer the control which is necessary to remove the state's bureaucratic stigma. Guild socialism would place the ownership of the properties necessary as health agencies in the hands of the state, but health administration would be entirely controlled by the expert groups doing the work. The state would exact or take rental for the use of its property, the organized physicians would exact wages for their services. Each would check the other.

4. *Health administration under co-operation* means organization of the people, entirely independent of the state and its politics, and the administration in a free society of the affairs necessary for the conservation and promotion of the health of the members. In Russia the people through their co-operative societies and the zemstvos employ physicians and conduct hospitals and clinics as co-operative enterprises. The great sickness societies and Krankenkassen of middle Europe are such co-operative institutions. In Continental Europe and Great Britain the co-operative societies are promoting health agencies with noteworthy success. Here we discover the lines of convergence of the scientific and economic aspects of health conservation. When the co-operative societies of Belgium through their economic administration secure pure milk for babies, send children on vacations from the city to the country, provide a six-weeks' rest for parturient women, secure sick benefits and unemployment pensions for workers, they are doing things for the protection and promotion of health which rival the best that the competitive practice of medicine is able to accomplish. A fundamental principle of co-operation is the promotion of preventive agencies to conserve health. The purpose of the co-operative movement is to have the people take into their hands the distribution and production of the things necessary for their welfare: food, housing, education, business and recreations. It means production for use in the interest of the consumers, with the ultimate aim that all shall become producers.

In Europe this movement now embraces fully one-third of the population. We have a few expressions of the distinctly medical side in this country in the sickness insurance societies and in the co-operative dispensaries conducted now in some of our colleges by the student body. The development of agencies for promoting the health of the people, if carried out on the co-operative principle, represents the application of the socialist ideal, stripped of its bureaucratic complications and made creative and free.

5. *The syndicalist principle in the organization of health agencies* is exemplified in the association into groups of physicians, surgeons, nurses and other experts, and the federation of these groups, to control the administration of their craft and the sale of their labor. The principle is that of the guild. This is the field in which the medical profession can organize itself on the basis of labor and service. This is its immediate hope.

There are such organizations in all stages of development. The national and local medical associations are imperfectly developed syndicates.

The Mayo Clinic at Rochester, Minnesota, is an example of a more highly developed syndicate. Here is a group of surgeons

and physicians, experts in most of the departments of medicine, who control a great organization for producing medical and surgical treatment. The income from services accrues to the members of the group, who distribute it, by their vote, as they please. Among the members of this syndicate economic competition is eliminated. Only scientific and technical excellence are countenanced. So prosperous has this organization become that it is able to place the consideration of service above that of pay. Any person, irrespective of rank or station, no matter how poor, may apply there for treatment, and receive the best that science has to offer. The rich and the poor receive the same consideration. The physicians through whose hands the patients pass are spared having knowledge of the patient's financial status. The surgeon has only one consideration, and that is to do the best that he possibly can for each. No fee is charged, and no discussion of finances is entered into until the patient is discharged and ready to leave the clinic. Then he is sent to the office where he pays according to his income and ability. It may be much; it may be nothing. He has received his treatment; the compensation is in his control.

It is significant that this plan, from a financial standpoint, is enormously successful; and from a medical standpoint is unsurpassed in its results. This institution represents co-operation at the point of production, at the place where the things are done, and by the workers who do them. By giving first consideration to perfecting results and doing supremely good work for everybody, the financial rewards have been commensurably great. Not only are the workers well paid but they set aside funds for insurance, pensions, scholarships, research, building, and other reserve purposes. The luxurious buildings, the perfect equipment and the opulence of the workers in this institution should give courage to the Industrial Workers of the World that the principle for which they stand is capable of development even in so technical and highly specialized a field as that of medicine and surgery.

Here is an object lesson in organization capable of application to every branch of medical practice and susceptible of adoption by the whole medical profession. It would be possible for the American Medical Association to develop the medical profession in this country as a great organized group of experts, guaranteeing to each member an adequate income, demanding high standards of efficiency, seeing to it that the man is adapted to his specialty, publishing its own literature, subsidizing its own authors, manufacturing its own instruments and drugs, and conducting its own schools and hospitals.

Already some of this program is in process of development. But it cannot be developed unless bureaucratic methods are utterly eliminated. The Mayo Clinic is not purely syndicalistic until it embraces all of the workers in the institution. That means all of the doctors, nurses, orderlies and everybody else. Nor can the American Medical Association or its state and county branches become effective instruments to promote the welfare of their members as workers until they are made democratic. The organization must be made absolutely amenable to the will of the whole membership. That means (1) one vote for each member, (2) elections by the preferential ballot, (3) the recall, (4) the initiative, and (5) the referendum.

The present dominant organization of the profession in this

country is so firmly fixed, its attachments to property, precedents, and the old order of things are so strong, and the forces which control its policies are so securely intrenched that it is a question whether it could be made to respond to the modern trend. This situation is not peculiar in medicine. The awakening in the Labor Movement the world over is characterized by a renouncing of the old organizations and the old leaders. The great strikes which are now becoming general in several countries are not promoted by the leaders of the great labor organizations. Instead, the shop stewards and the men who represent the rank and file, and are responsive to the popular will, are the ones delegated to formulate the actions. Almost invariably the old established leaders have been ignored. In fact in the final test they have been found on the side of reaction, with futile efforts trying to check the onward sweep of the masses. The new call for reorganization of the medical profession must come from new men—young men—whose minds are still open and who have not yet been spoiled by officialdom.

Opportunities await the medical profession. But first, it must recognize its brotherhood with Labor. Second, it must organize itself upon a democratic basis. Unless it does these things it will continue to be ineffective. Now when it goes before a state legislature, it has not the prestige of a mass movement; it usually presents the appearance of a clique with no mass behind it.

As a matter of fact if the profession were organized as a democratic mass it would not need to bother much with legislative bodies. It could have what it wanted irrespective of legislation. The law is utterly inactive unless there is some mass of people demanding its enforcement; and a solid mass of people can have what they want without any law. Any large group of people can make their own laws, and if they have sufficient solidarity, they can enforce them. This is an economic axiom, which is seen in operation every day.

How shall the medical profession organize itself as a working body? The group arrangement may follow the present political district lines—ward, county, state and national,—all federated and consolidated. This American Medical Federation should organize new groups and not make use of the old societies, excepting in communities where there is a progressive spirit or where the society is new or largely composed of young men. If an existing county society is willing to join the federation no new society need be formed.

The organization should be for the economic control of medical practice and health agencies. It should not conflict with the scientific work of the American Medical Association or the other special societies. It should aid them. Specialists in all departments of medicine should have their guilds which should be eligible for membership. This should include not only doctors of medicine but dentists, nurses, sanitarians, and medical chemists.

The profession of medicine in such a federation, being fundamentally economic in character, need not stand on its dignity as at present and pose as a semiphilanthropic enterprise. It should frankly and honestly lay down the premises that the doctor is working for his living and as a worker is entitled to receive pay commensurate with the value of his services. It should neither expect to receive charity nor to give charity. Justice is all it should demand. But it should demand full justice and not half justice. It should demand justice for itself and justice for the patient. Self-

ish justice is not justice at all. It should demand that the poor shall receive as good medical care as the rich, so long as society maintains these two anomolous conditions. The policy should be animated by the larger spirit of human justice.

Medicine should not compromise with the fundamental human needs. Every human being is entitled to proper medical care, just as he is entitled to air. The test should be not the amount of money the patient has, but the amount of need. If the municipality does not provide adequate medical institutions for the poor, with doctors fully paid to administer them, the doctors should take care of the poor and send the bill to the municipality. They can collect it if they are organized to do so. There are cantons in France where this very thing is now being done.

The organized profession should systematically take up with the political authorities this matter of the care of the poor and adjust it on an equitable basis. The doctor who renders necessary medical service to the sick should always receive pay for it, and his organization should maintain the machinery to secure it for him. The organization should concern itself as little as possible with legislative matters; politics are devious. It should solve its problems itself so far as possible in the economic field.

At the present time, however, it is still necessary to take cognizance of political legislation; and to that end a political committee, freely responsive to the will of the whole body, should be created. Such a committee should be maintained on a basis of efficiency. When they go before a legislative body they should not go as politicians to block some threatened act, but as workers with a constructive alternative which shall provide for justice for themselves and for the public.

A medical organization on syndicalistic lines should maintain a control of the qualifications of its members, jealously guarding their interests and maintaining high standards of efficiency. Organization such as this fails in its purpose unless it contains within it the possibilities of development and growth. Research should be provided for. Certain men should be subsidized to carry on experiments. Co-ordination in diagnosis and treatment should take the place of competitive individualism.

The possibilities of development are not met unless the organized medical profession provides for its own general cultural growth. Among men who do not understand the fundamentals of economics, the very principles which surround them every day in the pursuit of their bread and butter, the best results of organization cannot be attained. It is this deficiency which now is the stumbling block in the way. The reconstructed medical profession should assure the cultural development of its members through contact with true information of world progress—social, political and economic.

In the reconstruction of society now in progress there are certain fundamentals upon which we should insist without reference to their classification. The medical sciences must be lifted out of the sordidness of competitive business. The market of the sick must not be the place for any man to barter with his skill and his medicines. Either the doctors or the patients must organize for their own protection. It is preferable that both should.

Institutions of experts should be provided, into which a patient may go and have concentrated upon his case all of the technic and

learning which science and art have to offer. There is available enough knowledge to diagnose every ailment. Such an institution should co-ordinate all of this knowledge. It should be a fundamental of medical reconstruction that the man who decides whether or not an operation is to be done shall not be the one who especially profits by the operation. Urinalyses, blood-examinations, X-ray examinations, bacteriological studies, ureteral catheterizations, and many other specialized tests and methods require expert knowledge. These are best secured in the hospital. Team work is necessary.

Communities should be divided into sanitary districts, each with a sanitary expert answerable for the public health. Each district should have not only a social center but a sanitary center. In this sanitary center should be laboratories for the benefit of the sick, equipped with every appliance and facility, with experts in every department. In connection with it should be a central hospital.

Disease is of social importance, therefore health is of social importance. If left to private competitive business the patient does not come to the doctor until he is sick. This means that most disease is undiscovered and untreated. Any examination of school children, factory workers, or military recruits shows this to an astonishing degree. Health service should be organized not only to seek out disease but to prevent disease-breeding conditions. This can be carried out best as a social enterprise, either by the socialized state or the co-operative society.

Enough physicians should be available to serve the needs of every individual. These physicians should have their offices and equipment at the central clinic. Their first consideration should be preventive medicine. The best rewards should be for preventing sickness.

All of this is consistent with any of the above plans of organization excepting the present expiring system of individualistic competition. That is unsocial and not susceptible of communal development.

Conclusions

This discussion has presented a brief outline of medical reconstruction. To recapitulate, there are certain premises to be observed:

- (1) A change in the organization of society is now in progress, and medicine like all other callings is destined to participate in the radical reorganization.
- (2) The tendency is toward stateism. Stateism is not the ideal line for the best development of the medical profession.
- (3) As an alternative the medical profession should organize itself compactly on syndicalistic lines, as a workers' movement.
- (4) As so organized, it may compromise with the political state and develop the guild principle in conjunction with state ownership of medical institutions.
- (5) Or as a syndicalistic organization of workers, it may aim to coordinate its functions with those of co-operative societies of consumers.
- (6) The latter is the ideal plan. But in America it can not yet be consummated because of the still inadequate development of co-operative societies. The growth of co-operation, however, is rapid; and it is conceivable that by the time the medical profession can effect its own reorganization, the people will

have developed their co-operative movement to a point at which the two can become co-ordinated. This is the goal toward which all should look.

- (7) In the meantime the reconstruction of the medical profession should be set on foot as a problem purely of medical organization.
 - (8) If the medical profession does not organize as a working body, the majority of doctors will ultimately be drafted into the service of the political state or will be employed by co-operative societies.
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THE PROVEN VALUE OF RADIUM THERAPY IN EXCESSIVE UTERINE BLEEDING

Walter B. Chase, M. D.

Brooklyn—New York

THE excessive uterine bleeding mentioned in the title of this paper as a cause of grave disability even up to invalidism is of great frequency. It is my present purpose to demonstrate the efficacy of radium by the report of such cases rather than by argument. While I shall deal principally with non-malignant bleeding I shall not restrict myself thereto.

The special problem now under consideration is that of the control of uterine bleeding beyond the normal requirements of menstruation and decidual as relations to the health of woman and her capacity to fulfil the duties incumbent on womanhood. The burden of responsibility for such control rests primarily on the rank and file of the medical profession. They should not allow its early development to interfere with its care, and frequently make its cure or palliation difficult if not impossible. The disability caused by non-malignant bleeding is so frequent in women as to seriously lower the capacity of her sex, even to a degree which may unfit her for the legitimate womanly functions of womanly life. Kelly and Burnham described some years since varying types of uterine bleeding not due to malignancy, pregnancy, or inflammation of adnexa; of diverse pathogenesis, including polypoid endometritis, bleeding in young girls, and myopathic hemorrhages. The first series of cases reported belongs to types including myofibroma and fibrosis uteri.

Case 1 (Private) Mrs. D., aged 44, suffering from myofibroma; depth of uterus four inches; first menstruated at 16; 3 children, youngest aged 12 years. Saw her with her physician March 29, 1918: she was anemic, emaciated, weak, rapidly approaching invalidism and looked to be 60. Some time prior to this she had one X-ray treatment, and late in the previous autumn her physician had curetted her, but without avail. A consultant had recently advised against operation and in favor of radium treatment. The date previously mentioned I applied radium to the uterine cavity for 1000 mgm. hours. Within 3 days the flow ceased, and it never re-appeared. I saw her next April 1st, 1919 and her appearance

was completely transformed. Her uterus was diminished 50% in size and depth, and it may be regarded as normal under the circumstances. She had gained 35 pounds in weight, was in her usual robust health, and had resumed the ordinary activities of life.

Case 2 (Private) Mrs. M., aged 48; 4 children, youngest age 24. Menstrual flow excessive for 15 years. She came under my care at the Pilcher Hospital Sept. 21, 1918. Had been treated by her physician prior to her entrance, without benefit. She had myo-fibroma, fundus reaching nearly to umbilicus. On Oct. 2, 1918, I applied radium within the uterine cavity for 1250 mgm. hours; flow declined and ceased finally on Oct. 25. I saw her for the first time since her illness on April 5, 1919. Her uterus had diminished to one third its former dimensions. She is in excellent health and attends to her household and social duties as formerly.

Case 3 (Private) This case was reported to the Brooklyn Gynecological Society on Nov. 3, 1916, and the discussion participated in by my confrere who had referred the case to me, and was published in the American Journal of Obstet., March, 1917. The reasons for again quoting this case are, 1st, it was inoperable; second, it afforded ideal opportunity to demonstrate the efficacy or failure of radium to cope with so grave a condition, and, third, the favorable results. Mrs. W. had suffered menorrhagia for three years, a confirmed invalid with no sign of menopause. The case was one of symmetrical fibrosis uteri, the uterus being the size of a pregnant uterus of two and a half months. On March 25, 1916, I applied radium to the uterine cavity for 800 mgm. hours. On Nov. 26, 1916, the uterus had diminished 25% in size and the patient was in good health. Has not flowed since the month in which radium was used. In Nov. of the same year my associate reported the woman had the usual senile uterus, hard, with typical atrophy found in women of her age, in which there had been a substitution of yellow elastic tissue for the muscle fibres. The woman had remained in good health. It should be noted that the blood count at the time of beginning radium was 30% hemoglobin and in Nov. following 80. It is now three years since this single treatment by radium of this patient. In the present state of our knowledge, it is doubtful if there is any known remedy which would have brought results so prompt and satisfactory as these.

The following two cases were referred to me by the same surgeon as the preceding case, and are also reported by his courtesy. September 8, 1918.

Mrs. W., 46. Menorrhagia for 3 years. Hemoglobin 50%. Metritic uterus, no tumor. Cured. No Malignancy. Fifty mgs. of radium 22 hours. Absolute amenorrhoea for past two years.

Mrs. W. L. L., 48. Ectopic fifteen years ago. Metrorrhagia for two years. Cured three times, temporary suppression for two months after each. Uterus size of two month pregnancy, *hard*, smooth. Twelve hours radium. Cessation of all bleeding to date.

Prompt hemostasis of menorrhagia by radium. Mrs. B. (Private Case) Aged 49. Excessive menstruation for 21 years past, of the 21 day type, which now lasts 5 days. Was losing strength and fast approaching invalidism. Suffering from myo-fibroma. Entered the Caledonian Hospital for radium treatment March 24th, 1918, radium being applied to the uterine cavity for 1000 mgm. hours, with cross-fire from rectum. Principal portion

of growth situated in the posterior wall of uterus. By coincidence the menstrual flow appeared just as the radium was introduced. In a few hours menstruation was completely stopped by the presence of the radium and bleeding did not recur at the expected time of next menstrual period.

Space forbids further details from records which I proposed offering here from my work in types of cases mentioned and recorded by my confreres, in the Long Island College Hospital, the Methodist Hospital, Norwegian & Greenpoint Hospitals and elsewhere confirming the value of radium as judged from their standpoint. However, it is not to be inferred from this paper that certain types of large myo-fibromas and fibro-myomas with or without accompanying complications may not belong to the field of operative gynecology.

The successful treatment of serious uterine bleeding, occurring in malignant conditions at certain periods, without offensive discharge, has by advancement in our knowledge opened even in these cases a new field of procedure entitled to calm and unprejudiced consideration of the medical profession.

I shall be able only to refer to these in a very limited way, but like those previously discussed, are interesting in the great surgical clinics of the country, not only, but smaller communities where adequate quantities of potential radium are in the hands of capable surgeons.

The opinion of recognized authorities confirms my personal belief and experience that certain types of cancer growths frequently yield to the palliative and curative properties of radium in slow and successive stages. There may be arrest of the growth for varying periods up to regression and cure. The morphological changes in cancer thus treated are leading to authoritative research and pathologic study, and are of far reaching interest. Ewing of New York, (Journal of the American Medical Association of April 29, 1917) reported two cases in which the uterus was removed 4 and 6 weeks after radium treatment of well established carcinoma and in which no cancer cells were found. Other American and French observers reach the same conclusion. These observations establish beyond peradventure the efficacy of radium in certain cancer growths. The helpfulness of such experience is giving a new impetus to radium therapy which places its power and efficacy in its proper proportions and significance.

Mrs. M., aged 61, came under my care April, 1915. She had passed the menopause 8 years previously. Prior report of this case has been published and will be continued until final results are known. Patient had adeno-carcinoma of the endometrium; no metastasis determinable. She was very obese and a poor operative risk. Has suffered from irregular recurring hemorrhages with varying severity, but later declining greatly in quantity. Outside of these attacks she is in good health and enjoys life in its varying activities and diversions, to the full. Since Sept., 1915, radium has been applied within the uterus 9 times, latterly at longer intervals. It may be noted that it is now nearly a year since radium was required. Formerly the outlook was dubious but there is reason to hope another application or two will arrest the process, if not already accomplished. The only remaining local symptom is occasional oozing of blood from the cervix. The history

of this case warrants the inference that a cure should have been effected by radium within a few months, but she was so averse to surgical interference that only severe coercive measures were adequate to insure treatment when hemorrhage was present.

In October, 1917, Mrs. L., a widow, of 80 years was treated by me for carcinoma involving the cervix uteri and to a small degree the uterine body. She had received elsewhere two radium treatments some months previous without apparent results. She was not markedly anemic, neither cachetic, nor were there physical signs of metastasis. Her principal complaint was disability incident to senility. At intervals during that month I administered 1950 mlg. hours of radium, applied to the cervix with cross-fire from the rectum. A moderate bloody discharge diminished and disappeared, accompanied by regression and then arrest of growth. Apparently the condition was under control. Treatment was unexpectedly interrupted by her change to a distant residence and she passed from my observation. She had the advantage of the milder form of malignancy so frequently characteristic of cancer in advanced life.

The use of radium in the bleeding of young girls is relatively infrequent and should be conservative—not over 25 mgm. applied to the uterine cavity for a period not longer than 8 hours.

Cases where polypoid endometritis is an accompanying factor of a more serious condition, and in which radium is to be applied, may have the usual curettage omitted without detriment. My own observation leads me to the conclusion that radium has a far greater destructive power than the curette, and usually is a simpler process, and accepted with less aversion.



EDITORIAL



HEALTH INSURANCE.

ANYONE who attended the recent hearing at Albany on the Health Insurance Bill must have been impressed by the size of the gathering and the earnestness exhibited together with the fact that this measure has been forced into a position that demands the most earnest consideration of all citizens of New York State. From the standpoint of the medical profession it is intensely interesting to note that nearly four hundred doctors from all parts of the State were present at the hearing. If this means nothing more, it at least indicates that the medical profession as a whole is interested, and interested actively, a situation that has not occurred before, certainly not to the degree that exists at present. These men represented every angle of medical practice and were only divided by the degree in which they condemned health insurance. The interests opposing the bill included not only the medical profession, but the allied manufacturers, independent labor bodies, and wonder of wonders, the Christian Science Church. The spokesman of the Christian Science Church urged that Christian Science should not be compelled to contribute to health insurance as it was against their religious belief. He thereupon offered an amendment to the bill and then discussed and condemned his own amendment, a position that was promptly recognized and ridiculed by one of the leading spokesmen of the federated labor bodies, who offered the strongest and most vociferous support of the bill. Let it be said in fairness to the representatives of union labor that they exhibited a shewd, well-balanced and well-organized support to the measure which they had taken up, albeit they dodged the present issue, which on the part of the medical profession at least centered around the Davenport-Donohue bill. In introducing the subject, Senator Davenport announced that the present bill in his estimation was a good bill, but that he wished it understood that he realized that it was open to criticism, that he was unwilling to have injustice done anyone and that where the bill appeared unjust, it should be altered to make it fair to everyone. The impression made on many of the doctors present by their representative and spokesmen was not a uniformly happy impression. The brief remarks of the President of the State Medical Society were clear, dignified and forceful, as were those of the Counsel of the New York County Medical Society. Some of the other speakers, however, failed to show that consecutive and logical attack that bespeaks concerted study and preparation and carries conviction to the unbiased. Many physicians came away from the hearing firmly convinced that their interests must be served in a better and broader way than is possible under existing conditions. It is increasingly evident that a definite concert of action must be inaugurated by the physicians of New York State that will represent

all of them effectively and will show to those who are constantly battering the profession that there is a definite and concerted organization capable of effective resistance.

This Journal has advocated for several years the establishment of an independent Legislative Bureau at Albany to represent all medical interests through the medium of a well paid, trained layman whose entire time shall be given up to this important work. It is refreshing to hear from other quarters expressions of a similar sort and to realize that at last the Medical Society of the State of New York has come to realize the inefficiency of its present organization for this purpose, and to be told that it contemplates the formation of such a legislative bureau. One gathers, however, in talking with the men who have been considering this matter that they have not grasped the necessity for making this bureau the representative of all the professional interests of the State. There are large numbers of physicians who are at present unaffiliated with any representative body, or at best are members of small independent societies, who have suddenly awakened to the fact that they too are beginning to suffer from adverse legislation and they are clamoring to be allowed to help. It is right and proper that these men should be represented in some way, and it will be no small matter if, by affiliating them with some central body, practical unity can be established throughout the State.

It has been suggested that a physicians' guild be initiated, to which any practitioner of medicine may be admitted under broad qualifications, the object of which shall be two-fold. First: to provide a central body which shall devise means of unifying the entire profession for certain definite objects; and, second: to supply the financial backing for a paid legislative bureau. It is obvious that the details of such an undertaking will require most careful study. Jealousy, suspicion and distrust must be allayed and the promoters of the guild must enjoy the confidence of the entire body of physicians. The conservative element must liberalize itself. The radicals must moderate their demands, but there is a common ground upon which all can meet and that is the common danger which threatens us all under the spirit of State Socialism, which little by little is being crowded forward by two diverse elements who have contracted a remarkable misalliance—the theoretical socialists and the labor demagogues; the latter shrewd selfish and alert, have been quick to realize the value to them of the social reformers whose specious theories and utopian notions are offered to the unthinking hosts of allied labor as that most desirable possession "something for nothing."

The present Davenport-Donahue Health Insurance Bill is a glaring example of this attempt at State Socialism and some of the means that have been employed and the persons who are being used to further its interest are worthy of study. At least one of the latter was active some years ago in promoting a model insurance company constructed on lines of economy and efficiency, such that it could not fail. It died in its feeble infancy and its unnatural parent is now advocating with equal warmth the present health bill.

Another active propagandist has seen fit to make excerpts from adverse speeches and to publish them over their authors'

names as supporting this bill, a shortsighted piece of deception that is more than likely to prove a boomerang. These are some of the methods that the disrupted medical profession must meet. Even if the present bill fails to become a law, it will still have to fight other and more insidious assaults and to do so successfully, it must be unified. A unified profession may say to the proponents of health insurance, "we will not accept your proposition" and may thereby compel, where it can now only protest.

Partly as a result of the hearing, partly because of individual protest, certain amendments have been offered by the proponents of the bill. These include the delimitation of the beneficiary clause to employees of graded pay and including factory foremen, a distinction that is still too indefinite to be entirely satisfactory. It would seem far better to make beginning with the poorer element and wait until the system had proved itself before making the benefits so general. Domestic servants are excluded. A medical member has been added to the commission. This is so apparent a sop to physicians that it is almost insulting because the abolition of the panel throws upon them the necessity for independent incorporation and thereby makes it possible to raise the cry that the doctors are combining unlawfully in restraint of trade. In spite of the amendments the situation remains in statu quo and has not been much clarified by a brief conference with Governor Smith, who deliberately "passed the buck" by urging that until the bill had been passed by the House and Senate, it was not a matter for his consideration. When it was urged upon him that in his public utterances and in his pre-election platform he had announced that he had stood for health insurance, he so far modified his stand as to promise a conference at some future day at Albany with a committee of five, but he premised his statement with the assurances that it was a waste of time to talk with him unless we agreed to the principle of health insurance.

After thinking of the subject from several angles the question is still unanswered as to what the "principle" of health insurance means. What is the principle of health insurance? If it is that every one shall lay him by in store as God has prospered him according to the injunction of Scripture in order that he may have some saving against the time of trouble, then we heartily agree with the Governor that the principle of health insurance is sound. If this principle is stretched to mean that even the shiftless shall be compelled to set aside something to provide for sickness and that the authority of the State be used to enforce this, immediately there is a question as between the rights of the individual and the rights of the community; and if in addition the power of the State is used to compel the employer to set aside an arbitrary sum to balance his employees' enforced savings, the principle of health insurance becomes a very different matter. In point of fact "principle of health insurance" is a high-sounding phrase which can be bent to include any meaning that attaches to it in the mind of the speaker. The Davenport-Donohue Bill is a mongrel pup that is neither state insurance nor private insurance, but a mixture of lawless compulsion against the employee and organized blackmail against the employer and the frills which have been added to make it the centre of a political machine only serve to show it up for what it is.

A very natural question in connection with this whole matter is that which deals with the actuarial side of the matter. Who is the authority upon whose figures rest the estimate of the cost of administration and of the pro rata contributions to the funds. At the hearing in Albany, Mr. Miles Dawson spoke on behalf of that aspect of the question and it is a fair inquiry as to how far Mr. Dawson is responsible for the actuarial side of the bill. Mr. Dawson has figured in insurance matters before. He was prominently connected with an insurance scheme known as the Fellowship of Solidarity, a utopian scheme for providing life-insurance by a combination of fraternal with regular insurance. It died in its tender infancy from what is known as a "complication of diseases." It might be worth while if some other actuary were to submit figures for comparison with those already published.

In a circular letter received from Mr. John B. Andrews, Secretary of the A. A. L. L., just before the hearing, in which one was strongly urged to support this bill (and please note that it was the Davenport-Donahue Bill in behalf of which the plea was sent,) there were two printed circulars containing excerpts from the published remarks of a number of prominent laymen and physicians all breathing enthusiastic approval of health insurance. Among the quotations was one attributed to Dr. J. Richard Kevin and containing the statement that he was President of the Medical Society of the County of Kings, in which he is quoted as favoring health insurance. As a matter of fact Dr. Kevin has given a public assurance that those remarks were taken from his speech in which he bitterly denounced the Davenport-Donahue Bill. It is only necessary to point out the unfairness of taking any quotation from its context in order to prove a situation at variance with the speaker's meaning. This method is likely to prove a boomerang when its significance is brought before thinking people.

It must not be concluded from these criticisms that health insurance in principle is not an excellent thing. On the contrary a just and equitable plan by which good medical care can be assured to those whose income is inadequate is most desirable, both from the standpoint of individual advantage and of public health. At one time a plan was in vogue in Switzerland by which everyone was compelled to lay aside a certain percentage of his earnings as a reserve fund for sickness and it is curious that in all the present talk of health insurance, no mention is made of this fundamental principle of thrift. The idea seems to have seized upon the present enthusiasts that a plan advocated in some detail by Dr. Rubinow offers the best solution for the problem. This solution originally contemplated participation by employer, employee and the State and was vigorously fought by the insurance companies on the ground that the State should not become a partner in an insurance scheme, although in both Germany and England the tax payers provide a considerable share of the funds. One finds it difficult to explain why employers should be compelled to furnish one-half the funds. The plea that they are likely to be saved many sick days by the improved health that is sure to follow from a beneficent scheme is flatly disproved by the epidemic conditions that the world has just undergone. The plea that they should contribute toward preventive measures is fallacious because all measures taken by public health authorities and by private individ-

uals alike were ineffectual during the year past. Neither preventive medicine nor therapeutics in any way aided the burden which employers had to shoulder, and the bulk of the employers nobly assumed the responsibility and carried their employees on their pay rolls in spite of sickness. The question very naturally arises whether employers, being driven to increase their pay rolls to meet the demands of an insurance bill would not feel thoroughly justified in adopting the general practice of docking all employees for sick time. These are but a few of the objections to the principles of health insurance as enumerated by the proponents of the present bill. The question of medical attendance, however, is the crucial point in the whole scheme. Avowedly the plan is put forward in order that by cooperation poor people may get good medical care. The idea therefore predicates a sufficient incentive for good doctors to undertake a grade of work that they cannot afford now because of lack of time and lack of all remuneration. The laborer is worthy of his hire. Trades unionism stands upon this ancient adage and it applies to the physician equally with all craftsmen. The well equipped outstrip the ill equipped and the ill equipped, like small potatoes, are always found at the bottom of the barrel. In the eyes of the law, however, there is no such thing as superiority and inferiority. A doctor is a doctor. The work of the Compensation Act has distinctly shown the difference in physicians. With perfect willingness, the better class of men undertook compensation work in the beginning only to find that they came into competition with a class of men who were perfectly willing to prostitute their art for an assured fee, no matter how small. As a result the compensation work is now largely confined to a set of men who stand under the accusation of sharing their miserable pittance with a commercialized doctor, who has assumed the role of a padrone. The work is virtually controlled by the insurance companies and this one man so far as New York City is concerned. Precisely this condition will come to any insurance scheme in which the interests of the physicians are not adequately protected, for while they may enthusiastically undertake the work at first, they will speedily discontinue unless fairly treated and only the inadequates will go on. The provision in the health insurance bill which promises the free choice of a physician, acts both ways in this respect and the uninstructed and ignorant laborer is just as likely to choose an inadequate physician as a good one. The trouble with the health insurance idea is that it takes the doctor for granted, instead of recognizing him as the foundation stone upon which the idea necessarily rests. Until this is recognized there will be no adequate insurance possible. Physicians have always been ready to do their part and have probably sacrificed more than any other class. But they see in the present legislative proposal an interference with the rights which have been guaranteed them by the State so glaringly unjust that for once they are absolutely united in opposition, and rightly so. If from this present unification a permanent organization may result by which the interests of the physicians may be cared for in a businesslike and thorough way, great good will come from it.

H. G. W.

Society Transactions

TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, March 6th, 1919, at 8:30 p. m.

The President, Joseph P. Murphy, M. D., in the Chair.

Program.

CASE REPORTS:

1. Goitres. Presentation of Four Patients.
2. Lane Plating for Ununited Fractures. Two Cases. X-rays.

J. Richard Kevin, M.D.

Case 1 discussed by Drs. James C. Kennedy and J. Richard Kevin.

Case 2 discussed by Drs. Frank D. Jennings, William Linder, Richard W. Westbrook, John D. Sullivan, Joseph P. Murphy and J. Richard Kevin.

3. Intussusception. Specimen. Patient.
4. Kidney Calculus. Pyelolithotomy. Patient.
5. Strangulated Femoral Hernia.

James C. Kennedy, M.D.

Case 5 discussed by Drs. William Linder, Frank D. Jennings and James C. Kennedy.

6. Confinement. Four weeks later followed by Colon Bacillus infection of Gall-bladder. Operation. Cocaine Anesthesia.

Echinococcus Cyst of Liver.

8. Inguinal Hernioplasty, Internal and External Urethrotomy, Suprapubic Cystotomy. Cocaine Anesthesia.

9. Recurrent abscess of Lung. Cocaine Anesthesia. Shell concussion with bursting of original wound. Patient.

E. Arthur Parker, M.D.

Case 9 discussed by Drs. Frank D. Jennings and E. Arthur Parker. Use of Local Anesthesia with Cocaine discussed by Drs. Frank D. Jennings, Roger Durham and E. Arthur Parker.

10. Ulcer of Stomach in Child of twelve years. Gastroenterostomy.

Onslow A. Gordon, M.D.

Paper: Pre- and Post-operative Treatment of Gastric and Duodenal Ulcer.

(By Invitation.)

Anthony A. Rutz, M.D.

Discussed by Drs. John A. Lee, Arthur H. Bogart, J. Richard Kevin, William Linder, Onslow A. Gordon and Anthony A. Rutz.

JOSEPH P. MURPHY, M. D., President.

FRANK D. JENNINGS, M. D., Secretary.

Goitres. Four Patients.

J. Richard Kevin, M.D.

After a few preliminary remarks relative to operative results from the standpoint of the surgeon and the standpoint of the patient, Dr. Kevin said:

"One may obtain splendid results as far as the activity of the part which is operated on is concerned, but, on the other hand, the patient recognizes, too frequently, in fact, the result of the operation so far as the cosmetic effect goes, and for that purpose I wanted to show tonight the result of the incision for goitres which I have invariably carried out, and I thought that I would ask those four young ladies to come here

tonight and present themselves before you. There should have been seven patients here, but the other three have not arrived. I will ask you ladies to please step down and allow the gentlemen to look at you."

In response to interrogations by Dr. Kevin, one patient stated that it was about three years since she was operated on, another two years in June, another two years last October and the fourth five years since operation.

Lane Plating For Ununited Fractures. X-Rays.

J. Richard Kevin, M.D.

"I haven't had many occasions to use the Lane plate, but was obliged to use it in two cases that happened to come under my care on two successive days. The cases are these:

"L. P. entered the Broad Street Hospital on December 4th. The first picture shows the condition present on December 4th. The second picture, taken on January 23rd, shows the same leg in a cast; and the third picture, which I will pass around, and which was taken on February 10th, shows the Lane plate.

"The points of interest are these: in the first picture you will observe that it is a simple comminuted fracture which was put up in as straight a line as possible, under an anesthetic, and a cast put on. The second picture shows the position with the cast; and the third picture shows the condition after the cast was removed, after a lapse of about six weeks' time. The dates are on the pictures. It was a non-union case. Then an open operation followed with the Lane plate. I removed the Lane plate yesterday. With the exception of slight secretions around the dressings, the cast was permitted to remain for fully four weeks. It was four weeks and two days. I took it off yesterday. The leg is now perfect so far as function and union are concerned. Of course, another cast was put on to intensify the strength of the union.

"I will pass those three plates, showing those three first, and then I will pass the second case."

"The second case is that of S. G. (I should say that both of these patients were men of about 45 to 55 years of age), a very similar fracture to the preceding one, except that this was in the lower third, while the other was more in the middle third. Exactly the same conditions prevailing in both instances. You will note in the picture which Dr. Linder has that comminution was probably sufficient, with some muscle coming in between, to prevent union. Of course, in the application of the Lane plate all of the comminuted pieces were removed, and it was trimmed off and straightened.

"A similar case, S. G., admitted December 20th, one day after the other case, exactly the same conditions prevailing, as you will note, the first picture showing great comminution and large pieces there, but yet the line and the position were good. This was put up in a cast and allowed to remain on about six weeks and was then taken down, when the same condition was found to prevail as existed in the other case, namely, no union. An open operation with a picture and a Lane plate followed.

"In the discussion of these two cases I should like, Mr. President, to hear some of the experiences of the others here in those simple comminuted fractures.

"I might add that a Wasserman was taken when it was found that union did not exist, with negative results. I should also like to say that I think we are all more careful with our fractures than we have been in the past, and I also think that we are going to treat fracture cases with even greater care in the future than has been our wont in the past.

"The Broad Street Hospital makes it an established practice in every case that comes in there to have an x-ray taken. They have three people in the x-ray room. They are liberal in their x-rays, and they take x-rays in that institution if there is a suggestion of a fracture, before the surgeon sees the patient—before he arrives at the hospital. The moment

a patient is brought in on the ambulance, if there is not too much shock present, or something of that sort to prevent the taking of an x-ray, the patient is brought upstairs to the x-ray room and an x-ray is taken. After the cast is on, an x-ray is taken. So it is very helpful to have at your right hand such a liberal display of x-ray work. I have had many comminuted fractures on my service, but these are the only two in fully a year where I have had to do an open operation, and yet these two came in one following the other in the last 8 weeks."

DR. JAMES C. KENNEDY:

"I would like to ask the doctor what kind of a suture he used in the skin."

DR. J. RICHARD KEVIN:

"I used subcuticular sutures, of horse-hair, with a small drain, which was left in for 36 or 48 hours and then taken out."

DR. FRANK D. JENNINGS:

"I came in late, Dr. Kevin. Did I understand you to report Lane plating for non-union?"

DR. J. RICHARD KEVIN:

"Yes."

DR. WILLIAM LINDER:

"I think the whole key to the situation is that non-union in the tibia and the fibula is due to a pseudarthrosis, developing because of the interposition of some muscle which thereby prevents union. I cannot recall a single case of non-union on account of pseudarthrosis in the femur, because in that situation the muscle is less apt to get in the way; and I think the benefit which is derived from an open operation is in the way of approximation of the bone and the getting of the muscle out of the way. I think if you can get it together and succeed in getting it to stay together and put it up in a cast you will be able to get union for the reason that you appose bone and keep the muscle out of the way.

"As a rule, I think non-union takes place because of some constitutional condition of the patient.

"I do not think a plate is the feasible thing. I think in those cases that union should be stimulated by an inlay or some form of bone graft."

DR. RICHARD W. WESTBROOK:

"I have not been doing very much fracture work at the Brooklyn Hospital, but in cases which I had a few years ago I used the Lane plate where it seemed desirable that apposition was necessary which could not be gotten otherwise. I left the plates in. I rarely had to take them out.

"It seems to me that it is rather a reflection on the technic of the operation to take plates out. I left them in in a number of cases that I can recall, and, as far as I know, they remained perfectly well.

"I have never seen non-union. I have been in surgery a good many years and have never seen non-union of the tibia, of a fractured leg, where there was anything like reasonable apposition, and I would like to know if any one else has.

"These cases, I think, were hardly cases that one could call non-union, as they were not very far along. Sometimes it takes a long time to get union, but, as has been said, one may get pseudarthrosis with a very, very faulty position with soft tissue intervening, but if there is reasonable apposition I doubt it.

"I would like to know if any one has ever seen non-union in the tibia and fibula. A number of the older men are here and I would be very much interested to learn if any one or more of them would say if they have seen it.

"At the Brooklyn Hospital a number of cases on my service have been put up by some of my associates with the Martin band and we like it very much. It holds the many fragments in excellent apposition. It is easy to apply and does not loosen up as the Lane plate does.

"I did not see the second plate there. The first plate, of course, did not show very good apposition. It is the kind of a case which I imagine would have gotten union any how, but one is more satisfied to produce good apposition and use some of the means at our disposal, such as the plate, to hold it well. I should feel sure, however, that solid union would occur there.

"I have forgotten whether Dr. Kevin asked for any special point in experience. My experience with the plate has been, on the whole, I

think, good, but I should agree with Dr. Linder in the opinion that if one had actual non-union, a bone graft would be rather more in order, but I should not call these cases of non-union, but simply perhaps delayed union."

DR. JOHN D. SULLIVAN:

"You asked about the experience of others in cases of fracture of the tibia which did not unite. I have seen a great many and very few of them have failed to unite; in fact, I remember only one case, which occurred many years ago in St. Mary's Hospital, which failed to unite. I set it two or three times and kept him in the hospital for, I think, six weeks or two months. He went out with a pseudarthrosis. If surgery had been developed at that time to the state of perfection which it has attained at this time, I should have done an open operation on that patient. I am pretty sure there was soft tissue between the fragments, between the tibia or fibula, because there was no other reason why it did not unite. He went out with a brace on. He could walk. There was a little motion. He had pseudarthrosis. That is the only case of a simple fracture of the tibia that did not unite which I have ever seen. I have seen very many cases of compound fracture, yes, but I imagine in that case it was because of soft tissue between fragments."

DR. JOSEPH P. MURPHY:

"The literature mentions a number of cases of this type, indicating that it is of rather frequent occurrence to have non-union in the tibia. I personally have seen one case which occurred when I was an intern in St. Mary's Hospital, in which there was non-union of both bones in a boy about 13 years of age. He was brought into the service and had a false joint between the ankle and knee, which could be bent nearly to a right angle. This case came to the service of the late Dr. George R. Fowler, who did an open operation on him and attempted to remove the joint (I forget the technic), but, unfortunately, the wound became infected and it was necessary to do an amputation of the leg.

"In regard to the subject of the Lane plate: if you want to take the trouble, you can read a very good summary of the article by Lane. He was invited to give a clinic, by the late Dr. John B. Murphy and spoke at the Mercy Hospital, and in the January Clinics of 1914 there is a paper on this subject and you can get much information in a very short space of time from reading that article, as to the usage of the Lane plates and how he first came to use them and how they became more or less universally used in England."

DR. RICHARD KEVIN:

"I simply wanted to learn what the experience of others had been with this condition. As stated before, I haven't had occasion to use the Lane plate for this class of fractures, and they happened to come along two together. That was what I specified in asking the experience of other men.

DR. JOSEPH P. MURPHY:

"Relative to those two cases and the question of union, I would say that I suppose it is possible if we waited for ten, twelve or fourteen weeks we might have gotten a leg that would have been useful, but, from the fact that after six weeks' time there was evidently no union, it seemed that it was wiser, with the technic today, to do an open operation, and having opened it up and trimmed the parts and removed the spicules of bone, it is a simple matter to put a Lane plate in.

"The only objection to the Lane plate which I have found is that if you use too short a plate, or if you insert the screws too near the edge, you are apt to get necrosis. The further away they are better. Even those that were placed here were shorter than I would have used if I had had longer one at the time. They should be put as far away from the point as possible and thus prevent the likelihood of necrosis. In this instance it was a time-saver, as well as a matter of economy in knowing the case was absolutely secured. Of course, it could have been secured, as has been said, without the Lane plate, but when you are trimming up, you are more secure by fixing it in line, and in these two instances they have been extremely satisfactory.

"So far as the keeping of the Lane plates in is concerned, I don't think it is a reflection to go down and take them out, because it is a simple procedure with a little cocaine to make an incision over the area and remove the plate and sew over the skin and put it back in a cast.

That is all there is to it. In both these instances there was no infection whatever. I may say that those two cases went four weeks and then the Lane plate was removed."

Intussusception. Patient—Specimen.

James C. Kennedy, M.D.

Helen B., Brooklyn, N. Y. Age, 7 years.

Patient brought to St. Mary's Hospital in the ambulance, March 24, 1918, with a history of having been sick for five days, with abdominal pains and vomiting.

On the medical side, in the service of Dr. Rutz, the following history was taken: Patient a thin child lying in bed, eyes react to light and accommodation, pupils regular, teeth irregular, dirty, and many missing. Heart; no murmurs, and no enlargement. Chest; normal resonance throughout both lungs, abdomen; tenderness and rigidity with localized pain along right side, following the course of the ascending colon for about one-half its length, from the ileocaecal junction. Extremities: slight fullness about the ankles, legs covered with an Iodoform rash, reflexes normal. Glandular system normal. Dr. Rutz made the diagnosis of Intussusception, and turned the case over to the surgical side.

Operation, March 24, 1918. Median abdominal incision. Tumor found on right side of abdomen, and when brought up proved to be an intussusception with the caecum as the intussusciens with a portion of the small intestine tunneling its way through the ileocaecal valve as the intussusceptum, the outer peritoneal coverings were snugly adherent, showing the condition to be of some duration, the wall of the caecum close to the base of the appendix was dark and gangrenous. The caecum was resected and a lateral anastomosis done.

The child recovered.

Renal Calculus—Pyelolithetomy. Patient.

James C. Kennedy, M.D.

Joseph S., native of Russia, Age 26 years. March 10, 1918.

For a period of about four years, at intervals of three or four months, patient suffered severe attacks of pain in the lumbar region radiating along the ureter to the bladder, accompanied with vomiting. These attacks would last three or four days, and then pass away leaving a dull ache in the region of the left kidney. The urine at time would produce a scalding sensation.

Palpation: Showed tenderness over the left kidney.

X-Ray showed a stone in the pelvis of the left kidney.

Operation: March, 16, 1918. Drop method, left lumbar incision. Considerable difficulty in dislocating the kidney, because of its over size, and adhesions to the fatty capsule. Palpation readily revealed a stone in the pelvis of the kidney, where the x-ray had previously located it. With the finger of the left hand, pressing outward—the pelvic wall nearer the peritoneal cavity, the stone was pushed firmly against the outer renal pelvic wall, an incision was made through the fascial and fatty capsule and pelvis. Through this is a stone the size of a small bird's egg was removed. A careful search showing the pelvis and ureter free, the pelvic incision was closed with fine catgut, and the fatty fascial capsule closed over the pelvic sutures. Because of the large size of the kidney, and its tendency to fall below its normal level, it was anchored, and a strip of iodoform gauze to produce adhesions crossed its lower pole, according to the Senn method. The wound was closed in the usual way.

The strips were removed in six days.

The patient was discharged cured.

Strangulated Femoral Hernia.

James C. Kennedy, M.D.

Mrs. P., born in U. S., age, 30 years.

Mother of four children, the youngest one year. On December 12, 1917, complained of not feeling well. Sent for family physician, who prescribed. He saw her again on the morning of December 19, 1917. She was then vomiting and had severe abdominal pain; every effort to move her bowels was futile. On examination he found a tumor over the right femoral canal. I saw her with him late the evening of the same day, her abdomen was distended, and painful to the touch. Pulse rapid and weak. All the classical signs of advanced intestinal obstruction were present. As the weather was stormy, and there was some difficulty in getting the ambulance, I took her in my own machine to St. Catharine's Hospital.

Operation, December 19, 1917: With very little ether and considerable stimulation, an incision was made over the tumor. On entering the sack a sero-sanguineous fluid with an gangrenous odor emanated. Further investigation disclosed a piece of the gangrenous gut protruding from the canal. As this was too dangerous to return, a median abdominal incision was made, the small intestine disentangled, brought out and resected. A lateral anastomosis done, before this was done, however, several punctures had to be made in the enormously distended gut to permit the gases to escape. With the exception of some slight suppuration about the field for the radical cure of the femoral hernia, no trouble followed.

Patient was discharged cured January 16, 1918.

Strangulated Femoral Herina. Patient

James C. Kennedy, M.D.

DR. FRANK D. JENNINGS:

"I would like to ask Dr. Kennedy where he effected the anastomosis—from the ileum to the transverse colon or the ascending colon?"

DR. JAMES C. KENNEDY:

"The ascending colon."

DR. FRANK D. JENNINGS:

"You resected the cecum?"

DR. JAMES C. KENNEDY:

"Yes."

DR. WILLIAM LINDER:

"I wish to congratulate Dr. Kennedy upon his result in primary resection in the presence of intestinal obstruction. I have fought shy of doing primary resection in acute obstruction with dilatation of the gut, due to one or two instances which proved fatal, and after looking up the cause of my failure (this was in my early days of surgery), I came to the conclusion that the indication in intestinal obstruction is to relieve the obstruction and, therefore, for years I have been doing the two-stage operation devised by Mikulicz, in which the loop of gangrenous gut is left outside. The patient is in bad condition and a poor surgical risk, as a rule, and I am content with leaving the loop of gut outside for 12 or 24 hours. After the wound is sewed up, I puncture the loop in order to empty out the toxic material which is in the loop. I do not incise. I then remove the gangrenous loop with the cautery and do a second-stage operation to unite these two barrels of a gun, so to speak. I have done these cases under local anesthesia with good results.

"I believe the two-stage method is the safer procedure in these cases, and the doctor is to be congratulated on the result he got in the one-stage operation. I admit I wouldn't want to do it in one stage because of the two fatalities which I have had. I strongly recommend the two-stage operation as a better and safer procedure for the patient, particularly in the face of dilated and parietic gut, when we frequently have leakage and perforative peritonitis."

Confinement. Four Weeks Later Followed by Colon Bacillus Infection of Gall Bladder. Operation. Cocaine Anesthesia.

E. Arthur Parker, M.D.

"There is nothing much in these cases, except to show that the field for cocaine anesthesia is practically unlimited.

"The first case I desire to report is that of Mrs. L., aged 30. Her first child was born in June, 1918. There was nothing abnormal until July 4th, at which time she was taken with severe pain in the upper right abdominal region, radiating to the back, with nausea and vomiting. On July 5th the gall bladder was found to be enlarged and tender. Rigidity of the upper right rectus and peritoneal reflex were present. The urine was negative. The blood count showed 40,000 white cells; polys. 94 per cent; temperature 101 4-5; respirations 31; pulse, 136.

"Under cocaine anesthesia, the gall bladder was drained. Pus present. No stones. Colon bacilli were isolated.

"Recovery in this case was uneventful."

Ecchinococcus Cyst of Liver.

"My second case is that of J. B., aged 30; born in Italy. For the past two months he has had attacks of severe pain in the right upper quadrant, accompanied by jaundice. These attacks, lasting for one or two days, would return about every seven to ten days. He has had the present attack a week.

"The patient is emaciated and markedly jaundiced. Over the gall bladder region there is a fluctuating mass, tender to touch, but less rigid than a suppurating gall bladder. Temperature, 98; pulse, 84; respirations, 24. Urine, negative. Eosinophiles, 4 per cent.

"On November 13th, 1918, the cyst was opened; three smaller cysts evacuated; the inner lining of its walls and a part of the sac removed. A drainage tube was inserted.

"Recovery uneventful."

Inguinal Hernioplasty; Internal and External Urethrotomy; Suprapubic Cystotomy. Cocaine Anesthesia.

"The third case is that of W. G., aged 56. Married. Gonorrhea 25 years ago. Urination became increasingly difficult until now he can pass only drops. The hernia appeared about a year ago, is not painful, but is descending further into the scrotum.

"Under cocaine anesthesia a modified Bassini for right inguinal hernia, and internal and external urethrotomy, without a guide, were done. Finding it difficult to enter the bladder, owing to the density of the scar tissue, it was considered safer to do a suprapubic cystotomy and pass a catheter from within out. The scar tissue was opened over the catheter and drainage instituted. The patient is still in the hospital."

Recurrent Abscess of Lung. Cocaine Anesthesia. Shell Concussion With Bursting of Original Wound. Patient.

"My fourth and last case is that of Wm. McC., aged 24. This patient entered St. Mary's Hospital on June 20th, 1914. Temperature, 100 2-5; pulse, 84; respirations, 20. The blood count showed white cells, 24,400; polys., 88 per cent. Urine, negative. He had pneumonia about one month previously. The x-ray showed a shadow.

"On June 23rd, under local anesthesia, a rib was resected and the pleura opened and packed. On June 25th the dressing was removed, an artery clamp inserted into the lung and drainage instituted.

"On November 29th, 1916, he again entered St. Mary's Hospital, giving a history that he had a cough for two months and had lost 40 pounds. Temperature, 101 3-5; pulse, 116; respirations, 28. Urine negative. The sputa showed no T. B., staphylococci or streptococci.

"On November 29th, 1916, under local anesthesia, a lower rib was resected; abscess of the lung opened and drained.

"In 1918, about the latter part of September or October, he was a tank mechanic in France and while attending tanks in action on the

battlefield, he was knocked down by shell concussion, and the lower wound opened. He was removed to the hospital, where he remained for about three months, in France. At this time he remained unconscious for a few days, and gradually recovered.

"There is practically no breathing as I examine him now, in the lower base of the lung. I don't think he can be killed—two abscesses of the lung, shell concussion, opening of the lower wound, recovery."

DR. FRANK D. JENNINGS:

"Did this second abscess appear two years after the first one?"

DR. E. ARTHUR PARKER:

"Two and a half years."

DR. FRANK D. JENNINGS:

"And in a different part of the lung?"

DR. E. ARTHUR PARKER:

"One upper and the other lower."

DR. FRANK D. JENNINGS:

"And in the meantime his health was good?"

DR. E. ARTHUR PARKER:

"Between the two, yes."

DR. FRANK D. JENNINGS:

"Was there any reason at all for the second one?"

DR. E. ARTHUR PARKER:

"Grip."

DR. FRANK D. JENNINGS:

"This time, in France, he says the skin wound burst open and discharged some blood, but not any pus. He says he was all filled with shrapnel. As a matter of fact, the shell concussion apparently did not hurt his lung at all."

DR. E. ARTHUR PARKER:

"No, not at all."

DR. FRANK D. JENNINGS:

"Dr. Parker speaks of local anesthesia with cocaine. I would like to have him state how strong he uses the cocaine, what amount he uses and the form of anesthesia, whether he uses endermic or infiltration, or both, if you please, doctor."

DR. E. ARTHUR PARKER:

"Answering Dr. Jennings' question, I would say that the strength of cocaine used is 1-10 of 1 per cent. In the gall-bladder you must have infiltration. In cases where you can locate the nerves, such as herniotomies, block them."

DR. FRANK D. JENNINGS:

"Have you had any cocaine poisoning?"

DR. E. ARTHUR PARKER:

"I have never seen it."

DR. FRANK D. JENNINGS:

"What is the total amount in any one case?"

DR. E. ARTHUR PARKER:

"As high as 2 or 3 grains."

DR. ROGER DURHAM:

"In the matter of local anesthesia and the use of cocaine, I think many of us would have some timidity about using cocaine as a local anesthetic in any unlimited amount, at least going beyond the average dose that we know is a safe dose. In using novocain one can use $\frac{1}{2}$ —2 per cent novocaine in practically unlimited amount with apparent perfect safety. As far as I know, there is no restricted dosage of novocaine stated, whereas I think many surgeons have had trouble, and sometimes serious results, with the use of cocaine."

"Personally, I would feel much safer in using novocain; in fact, I have no fear with the amount that one would require with an abdominal incision, thoracotomy, or some such condition as that, whereas with cocaine I would be very much afraid of going beyond the $\frac{1}{4}$ - or $\frac{1}{2}$ -grain dose."

DR. E. ARTHUR PARKER:

"I have never seen any ill effects from cocaine as an anesthetic in the strength of 1-10th of 1 per cent, after an experience with it of twenty years. Novocain is slower in action, than cocaine. Cocaine is much quicker. I give a $\frac{1}{4}$ -grain of morphine 15 or 20 minutes before operation. Morphine and cocaine, as far as I can see, are antagonistic systemically,

whereas locally they are not. In using 1-10 of 1 per cent cocaine I have not had any poisoning; and it can be used in any quantity one likes, as you saw in that case of herniotomy, external and internal urethrotomy and opening of the bladder from above. I have used cocaine all these years and am afraid to change it."

DR. FRANK D. JENNINGS:

"How do you sterilize it?"

DR. E. ARTHUR PARKER:

"I sterilize it by merely dissolving it in ether, adrenalin and normal salt solution and bring it to a boil.

"There is one thing that I would like to say about the use of iodine where it is used for the purpose of disinfecting the skin. There is a tendency to get a slough when it is used for this purpose. In that man, the intern, before I had a chance to stop him, painted the abdomen with iodine. That was subsequently washed off. I would also like to add that I was talking to a dentist about the element of sloughing after the use of iodine and he said he had had the same trouble with it in dental work in the form of sloughing of the gums, but that he had discontinued its use and uses alcohol instead as a sterilizer and since doing so has not been bothered with sloughing."

Ulcer of Stomach in Child of Twelve Years. Gastroenterostomy.

Onslow A. Gordon, M.D.

"I am well aware that gastric ulcer and gastroenterostomy are no longer particularly interesting to members of this society. Gastric ulcer in a child with the finding and history such as I present are, I think, worthy of a few moment's consideration.

"I was asked by Dr. John Glynn in May last to see a child 12 years of age, who had very acute abdominal symptoms. She was distended, extremely tender, with very rigid abdominal muscles, she had been seen by one or two others in consultation and the most probable diagnosis was a ruptured appendix, but the greatest point of tenderness when I saw her was in the upper right quadrant. I decided that it was a surgical abdomen and should be opened.

"I made my incision as I would make one for a gall-bladder. When I got into the abdomen I found a localized peritonitis and a large indurated ulcer on the gastric side of the pylorus. The ulcer was so thick you could pick it up in your fingers, and it felt about the size of half an egg if you cut it across. In the centre of this mass was a very thin area which was covered by a membrane, not as thick as the normal peritoneum; in fact, you could see through this membrane, showing that the ulcer was about to perforate, which accounted for her acute symptoms. I believe it would have perforated within twenty-four hours. I do not think there is any doubt of it. The child was much emaciated and very weak. I treated it as I would a perforation of an ulcer, by a purse-string suture and inverted it and then hurriedly did a posterior gastrojejunostomy.

"Afterwards I elicited the following history—that the child vomited after every meal up to 2 years of age. She was very much emaciated. At 3 years of age, the vomiting became intermittent in character, and the symptoms that I could get from the mother were those of recurring ulcer. She weighed 49½ pounds when she entered the hospital. She made an uninterrupted recovery. I saw her recently. She now weighs 70 pounds, a gain of 20½ pounds and has not vomited since the operation. At the time I operated, her face was the face of an old woman.

"I present it simply because it is the first case that I have ever operated on in so young a child, and I believe that that ulcer was present at birth or very shortly afterwards. She had a thickened pyloric orifice and undoubtedly it was one of those cases of hypertrophic pyloric stenosis.

"Dr. Rutz, who is familiar with this case and who took charge of the diet of the child from the operation, to which care I attribute very largely the child's good condition, suggested (perhaps he can tell us more about this in his paper, or preceding his paper) that the hypertrophic

stenosis of the pylorus was due to pylorospasm from the presence of the ulcer, but I am unable to determine that.

"I found tonight a report of the sudden death of a child 45 hours old, with acute symptoms, and the autopsy showed a perforated gastric ulcer.

"I bring this up because it is the first case in one so young that I have ever seen. If any one else has seen a case so young I would like to hear of it.

"I remarked at the time of the operation that if she were older I would have said it was a case of malignancy.

"The operation was done last May. She is now in perfect health and going to school."

"I have another case which is not on the program, but with your permission, Mr. President, I would like to report it.

"A young woman, 28 years of age, married four years, a fine specimen of womanhood to look at, feminine in every respect, said that she had never menstruated. On examination I found that her breasts were well formed and well developed, but that she had no nipples, no axillary hair, no pubic hair, broad hips, full chest, and upon vaginal examination the external genital organs looked about like those of a child 10 or 12 years of age. She had a small clitoris. The vagina was about 12 inches deep and was a blind sac. Bi-manual examination showed that there was absolutely no uterus. She is in every way a perfect woman with the exception of the uterus."

Case Reports by Onslow A. Gordon, M. D.

DR. JOHN A. LEE:

"I have had three cases of absence of uterus that have come to me in a rather unusual manner, one case of which had a very interesting history and this case I reported before this society about ten or eleven years ago, and perhaps a brief review of that case may be of some interest now, because I heard indirectly only last week about this young lady. How I first came to get acquainted with the interior of her anatomy was the fact that she had an attack of what I thought at the time was a rather subacute appendicitis and after having one or two slight attacks she finally consented to submit to surgery at my hands, and when we operated we found the appendix not very much diseased, but we found a large tumor in what was an ovary, a pure bloody cystic tumor, and on opening her up so that we could get a full view of the pelvis it was found that she had only the slightest extension of her broad ligament, slight thickening, and that slight thickening of the broad ligament had the appearance of a uterus. On either side from this slight thickening were what would ordinarily be the ovary, both ovaries purely cystic and bloody in character. This girl had never menstruated, and after she recovered from this operation I elicited what might be described as a more interesting history. I found that this girl had had, from the time she was 15 or 16 years of age, a vesico-vaginal fistula which had been produced in the following manner. When she reached the age of puberty and no menstruation came around, after some time her parents consulted a physician and believing that he had to deal with an imperforate hymen, without quite sufficient examination attempted to correct what he thought was an imperforate hymen. He opened up through this vaginal tissue into the bladder, producing a vesico-vaginal fistula, which did not heal, and previous to coming under my care for the treatment of this thing, this girl had had seven previous operations to cure this vesico-vaginal fistula. They had all been failures, and I operated upon her and she added one more failure to her list. Notwithstanding that, I was able to prevail upon her to submit once more to my tender mercies. At that time the gynecologists in our institution were very strong on silver wire, and, following the suggestion of the late Dr. Corcoran, I think it was, I placed this young woman in a sort of Sims' position and freshened up her edges and used silver wire as sutures in this vesico-vaginal fistula and got a perfect result"

DR. JOHN D. SULLIVAN:

"Did you use any lead plates?"

DR. JOHN A. LEE:

"I used nothing but the silver wire.

"Shortly afterwards she went to England and has been there for the last ten years. I heard the other day through some friends that she visited that she is back in this country again and has been perfectly well ever since.

"It is a peculiar circumstance that I have had two more cases on my service at St. Mary's Hospital of the same kind, that I took to be cases of acute appendicitis. They were brought in on the ambulance, young girls between, perhaps, 20 and 24 years of age, with tender abdomens and extreme tenderness over the region of the appendix, or possibly the right ovary, and upon going down there I found almost the same condition, namely, large bloody hematomata of the ovary, and the ovary had never functionated, and no uterus, except that in all those cases there was an attempt made by nature to produce a uterus. She stopped very early in her attempt because there was only a broad ligament which extended nearly all the way across from one side to the other, and in the middle where the uterus would be, there was a slight thickening with the appearance of a uterine body. This thickening extended into the broad ligament so that there was absolutely no connection between the vagina and the rudimentary uterus. In those three cases there was also a rudimentary vagina and in all of the three there was every appearance of femininity."

DR. GEORGE I. MILLER:

"I desire to state that I have seen four cases of undeveloped female generative organs. Two cases I operated and two escaped me. Of the two I operated one was an Italian girl who came to me with an abdomen almost the size of a nine months' pregnancy. She was married. On examination I could introduce my index finger about an inch and, from all appearances, there was a roof to the vagina and a mass in the abdomen which appeared like a great big, hard fibroid. She had never menstruated. She was fully developed. On opening her up I found I had a bloody tumor, bigger than the one which Dr. Lane has described, and it was a hematometra. She had menstruated within her own uterus from the beginning of menstruation until she had so expanded it that it looked like tissue paper after the uterus was emptied. The entire uterus collapsed. She had no ovaries. I made an artificial vagina and she has been living with her husband now for about eight years without any discomfort.

"The second case was that of a Polish woman who was married to a great big strapping man and he had never succeeded in entering her. She was referred to me and on examining her I found I could introduce my index finger about one-half inch and, believing she had no vagina, I opened her up and found a little bit of a uterus, or a least what I supposed to have been the uterus, the size of a hazel-nut. She had no ovaries. I took twelve inches of her ileum and brought it down to between the bladder and the rectum, opened the ileum from below, divided the septum and established an artificial vagina. This woman recovered and is still living with her husband and is now satisfying him. He was ready to sever relations with her. I reported this case to this society some six or seven years ago.

"The other two cases which escaped me, one was a girl about 16 years old who had not menstruated, but every time at the menstrual period she was in a state of discomfort, and on examination I found she practically had no vagina, but the mother refused to have her operated."

"The other case was that of a married woman who had just entered the marriage state and the husband failed with her and she tried to get relief. I explained to her that she had no vagina, but she refused operation and traveled further."

DR. WILLIAM LINDER:

"I think that these cases are of much more frequent occurrence than is generally supposed. I have come in contact with two or three of them, but have never come in contact with a case like that which Dr. Gordon has reported here tonight, in which there was no hair on the pubic and axilla and no nipples.

"In one case which I operated on I opened her up from below and above. The patent in this case was one of the finest looking and best developed girls I have ever seen. She was a domestic and had never menstruated. She had a small, undeveloped vagina. I could feel by bimanual examination a little bit of a thing about the size of a lima bean,

which evidently was the uterus. The reason she subjected herself to operation was because she had kept company with a young man and was conscience-stricken and wanted to know if she could perform the duties of a married woman, and upon telling her of this deformity she promptly refused marriage.

"I had another case of a married woman who came to me with a history of never having menstruated and wanted to know if there was any chance of her having children. Her breasts were fully developed and upon examination I found a most peculiar condition. The vagina looked simply like an opening. I looked for the urethra but could not find it. The husband, it seems, had been using the bladder for the vagina. She had experienced no discomfort from this method of intercourse. I could not feel any vagina at all. I found that she had a dilated urethra which admitted two fingers and was apparently large enough to admit a good sized organ. This woman never had any trouble whatsoever, never had any incontinence of urine, you could do a cystoscopy without any trouble at all, and the only unusual thing about the case that she observed was that she said that right after copulation she found it necessary to empty her bladder; and this thing had been going on for some time. She did not think the menstrual function was necessary to having children.

That simply shows some of the peculiar things which occur in the human being."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1919, No. 5

MAY, 1919

5 PAGES

TEXT-BOOK OF GENERAL BACTERIOLOGY.

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph.D. Professor of Bacteriology in the University of Chicago and in the Rush Medical College. Sixth edition thoroughly revised. Octavo of 691 pages, fully illustrated. Philadelphia and London; W. B. Saunders Company, 1918. Cloth, \$3.75 net.

This sixth edition of "Jordan" has been revised and brought up to date. It makes no pretence of being an exhaustive treatise or of going into the details of special bacteriological technic but teaches the principles of bacteriology, the characteristics of pathogenic bacteria and has an excellent section on industrial bacteriology. It is a work which ought to find favor among teachers of bacteriology to medical and other scientific students.

E. B. SMITH.

MANUAL OF GYNECOLOGY.

A MANUAL OF GYNECOLOGY. By John Cooke Hirst, M.D., Associate in Gynecology, University of Pennsylvania; Obstetrician and Gynecologist to the Philadelphia General Hospital. 12mo of 466 pages with 175 illustrations. Philadelphia and London; W. B. Saunders Company, 1918. Cloth, \$2.50 net.

This is a difficult book to review for it is so compact that all one can do is to criticize or to praise. It has a surprising number of excellent illustrations for so small a book—about two to five in relation to the number of pages.

It is not a discursive philosophy but a didactic teaching manual arranged in a logical manner, embodying the best in current practice and eminently fitted for a student who desires fundamental essential facts.

E. B.

PATHOLOGICAL TECHNIQUE.

PATHOLOGICAL TECHNIQUE. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the

Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank Burr Mallory, A.M., M.D., and James Homer Wright, A.M., M.D., S.D. Seventh Edition, revised and enlarged. Phila. and London, W. B. Saunders Company, 1918. 555 pp. 181 Illustrations. 8vo. Cloth, \$3.75.

The seventh edition of Mallory and Wright's Pathological Technique will, without question, be accepted with the same cordial reception as its preceding editions. The book needs no introduction to laboratory workers. It is a standard.

The new edition contains additions, keeping pace with progress in the field of laboratory technique. Among the new procedures are—Goodpasture's stain for frozen sections, Graham's method for the oxidase reaction, Brenians' method for the demonstration of spirochaetes, Claudius' stain for flagella, and the classification of pneumococci from the standpoint of specific serum therapy.

It is noteworthy that the volume is essentially intended to be a practical one; only those methods are described which have received the stamp of approval from laboratory workers, and which can be carried out in any laboratory restricted to diagnosis. The clearness and brevity of the descriptions deserve special comment.

The authors are to be congratulated upon retaining the excellent standards of their little book, without which, no laboratory library, however small, can do.

MAX LEDERER.

TEXT-BOOK OF PHYSIOLOGY.

A TEXT-BOOK OF PHYSIOLOGY FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph.D., M.D., Sc.D., LL.D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Seventh Edition, thoroughly revised. Philadelphia and London, W. B. Saunders Company, 1918. 1059 pp. Illustrated. Plates. 8vo. Cloth, \$5.00.

Students and physicians who are familiar with any of the six preceding revisions of this valuable work need not be told that

it is as practical and thorough as its predecessors with the contents brought up to date. The author makes a much needed effort to get students to realize the fact that scientific explanations are "provisional only," and constantly subject to revision as new experimental information is obtained. The volume is composed of nine sections dealing respectively with: Muscle and Nerve; Central Nervous System; Special Senses; Blood and Lymph; Circulation; Respiration; Digestion and Secretion; Heat Production and Regulation; Reproduction. Among recent subjects dealt with are hormones and chalcones, the thyroids, parathyroids, adrenals, hypophysis and pineal body, the fat-soluble and water-soluble vitamins, the physiological effects of alcohol, cell autolysis, the nutritive value of various proteins, Mendelism, and the relation of the X-chromosome to sex.

The author states that the chemistry of the change of sugar into fats "is not understood and cannot be imitated in the laboratory." Nothing is said of the rift in this dark cloud suggested by the Cannizzaro reaction, in which reductions accompany oxidations, nor of the separation of ions by cell membranes. The statement is made that "In the sugar the oxygen constitutes 53 per cent of the molecule, while in fat it forms only 11.5 per cent." The student can infer that the sugar referred to is dextrose or sucrose but what about the kind of fat meant? A fat containing much tri-olein and little of the higher tri-glycerides will vary greatly from one containing much, say, tri-lignocerin and little tri-olein. The oxygen percentages of these vary widely. In dealing with "Heredity" the student might have been told how variable the meaning of this word becomes because of the innumerable effects of the environment. The organism's inheritance is ever the same but with it identical in two, three or more cases the heredity can vary widely according to circumstances. With the same inheritance a ripe apple may be rosy red or yellowish green, it may be large or small, sweet or sour, according to the conditions of its environment. The heredity differs in each case, but the inheritance does not.

R. G. E.

AUTOTHERAPY.

AUTOTHERAPY. By Charles H. Duncan, M. D.
Published by Dr. Charles H. Duncan, 2612
Broadway, New York City. 361 pp. 12mo.
Cloth, \$5.00.

Autotherapy as advocated by Duncan consists in the hypodermic injection into an individual of a filtrate of secretions or discharges of that individual.

It differs from vaccine therapy in that

there are no bacteria either living or dead in the filtrate, and therefore any action that may occur or result is due to the filterable bacterial products.

The technic of preparation of material for injection may be briefly stated to be the passage of the secretion through a Berkfeld which removes all solid and bacterial content, and the collection of the filtrate in sterile bottles.

All secretions are utilized as pus, urine, sputum, mucus, vaginal secretion, etc.

In addition to the hypodermic method the author also advises the administration of the filtrate by mouth in cases of acute infection not connected with the alimentary tract or the respiratory system.

While there can be no doubt that the method has some merit, one cannot but feel that this volume is the work of an enthusiast who has been carried away by his zeal for his own favorite therapy, and whose sweeping statements must be to some extent discounted.

Two rather unusual features of the book are a collection of indorsements or testimonials from physicians and veterinarians, and a bibliography of seventy-two references of which forty-three are to articles by the writer.

W. H. DONNELLY.

SURGERY IN WAR.

SURGERY IN WAR. By Alfred J. Hull, F.R.C.S. With a Preface by Lieut.-General T. H. J. C. Goodwin, C. B., C. M. G., D. S. O. Second Edition. Philadelphia, P. Blakiston's Son and Co. 1919. 624 pp. 210 Illustrations. 8vo. Cloth, \$6.00.

Born of the travail of war this volume, now in its second edition, has shown a growth commensurate with the times. Three years ago it was a small book which could be slipped into one's pocket. Now it has over 600 pages and is full book size. Six contributors have written special sections and the stamp of authority is added by the preface which is written by Lieut.-General Goodwin, Director General of the British Army Medical Service, who is so well known in this country.

The binding, paper and illustrations are all excellent. It is doubtful if any other single volume on military surgery is so generally useful as this one.

Under antiseptic treatment a historical survey of the many antiseptics used and the methods is given. Four pages are given to Sichloramine T. It is especially recommended as an "inhibitor of sepsis."

The chapter on tetanus is especially good and that on anaerobic infections goes into great detail and has an extensive bibliography. There are four splendid colored plates of gas gangrene.

W. Miller who writes on gunshot

wounds of the chest differs from the French school, headed by Duval, and states "It is not justifiable to perform thoracotomy except, in emergency, without the aid of pressure anesthesia or some form of differential pressure apparatus."

One of the most interesting chapters is that on gunshot wounds of the face and jaw, by H. E. H. Tracy. The forms of apparatus used in the control of fractures are minutely described and depicted. The subject of compound fractures is splendidly handled by the author, with numerous illustrations.

Our own Lieut.-Colonel Crile assisted in the preparation of the chapter on shock and furnished some of the illustrations.

The wealth of valuable information in this book should be applied to civilian injuries and not interred in a library because peace is at hand.

HENRY F. GRAHAM.

SURGERY AT A CASUALTY CLEARING STATION.

SURGERY AT A CASUALTY CLEARING STATION. By Cuthbert Wallace, C. M. G., F. R. C. S., and John Fraser, M. C., F. R. C. S. E., London, A. & C. Black, Ltd., New York, The Macmillan Company, 1918. 320 pp. Illustrated. 12mo. Cloth, \$4.00.

This book of 300 pages covers the type of surgical work associated with the Casualty Clearing Station. It is an excellent book and the findings are founded on close study and careful observations.

The authors, like many British writers, advocate primary suture of wounds, after complete excision and cleansing. They fail to describe fully the conditions where such treatment is indicated.

The chapter on "Abdominal Wounds" is well written and unusually instructive. The writers close the majority of wounds of the stomach and small intestines without drainage, excepting where there is obvious soiling. In wounds of the colon, especially the fixed portions of the ascending and descending colon, thorough drainage is advised. In post operative cases bowel action is produced on the fourth day by intramuscular injection of 1 c. c. of pituitrin.

Uncomplicated wounds of the stomach gave a mortality of 50%. Wounds of the small intestines uncomplicated by wounds of other hollow viscera gave a mortality of 65%. The writers do not tell us the time that elapsed between the receipt of the injury and operation.

HARRY R. TARBOX.

PAPER WORK OF THE MEDICAL DEPARTMENT OF THE U. S. A.

PAPER WORK OF THE MEDICAL DEPARTMENT

OF THE UNITED STATES ARMY. A Guide for Administrative Work. By Ralph W. Webster, M. D.; Ph. D.; Major, M. C., U. S. Army. Cloth. Philadelphia: P. Blakiston's Son & Co., 1918. Price \$5.00 net. 8vo. Pp. 541.

This is a comprehensive volume on the paper work as it applies to the Medical Corps in the United States Army. It will be appreciated by all who are aware of the difficulties attendant upon this work and who realize that although many of the tasks which are seemingly insurmountable and extremely annoying yet are easier when one knows the correct way to perform them.

The author takes up the various blanks which are used in the service beginning in the first chapter with those which have to do with enlistment and the recruit and illustrates the correct manner of filling them out.

In the second chapter he deals with papers pertaining to the company or detachment and illustrates the various forms correctly filled out.

Chapter three describes "Papers pertaining to Medical Organizations."

In the fourth chapter papers pertaining to hospitals are illustrated. These have caused most of the medical men, particularly those of the reserve, untold annoyance and anxiety and the author has given a very clear exposition of the various forms used.

The fifth chapter deals with papers pertaining to the higher executive offices and takes up the various reports and returns which must be made.

The book is well written and amply illustrated and should be of invaluable service to Medical Officers especially when they are new to the work and should also be of considerable assistance to Medical Officers who are in the regular army service as a vade mecum.

SYLVESTER R. LEAHY,
Captain, M. C., U. S. Army.

NERVOUSNESS

NERVOUSNESS: ITS CAUSES, TREATMENT, AND PREVENTION. By L. E. Emerson, Ph. D., Psychologist, Massachusetts General Hospital. Boston, Little, Brown, and Co., 1918. 184 pp. 12mo. Cloth, \$1.25. (Mind and Health Series.)

The topic of nervousness is one that carries a personal appeal to vast numbers of the American people, for, as a nation, we are decidedly prone to nervous functional disorders. As Dr. Emerson says in a prefatory note, "Let him who has never been nervous, lay down this book; it is not meant for him. But if everyone else will read it, I will be satisfied." He has attacked the subject from the angle of psychoanalysis, taking as his thesis the proposition that functional nervous disorders represent the inability of the patient to cope with his environment; that

they are frequently symbolic of the conflict between the individual and the social consciousness; that they may be refuges behind which the patient hides to avoid facing the realities of life. It is all interesting, and much of it convincing; every physician should know something of the Freudian psychology; even tho he may never attempt to carry out an analysis, he will at least gain a deeper insight into underlying psychic causes of nervous disorders, many of which are unsuspected by the patient.

It will be quite a shock to many readers to find that, under the head of treatment, there is nothing mentioned about diet, exercise, or pills of any kind; the author recognizes their utility, but considers them secondary.

ORGANIC EVOLUTION

THE CAUSES AND COURSE OF ORGANIC EVOLUTION. A Study in Bioenergies. By John Muirhead Macfarlane, D. Sc. New York. The Macmillan Co., 1918. 875 pp. Illustrated. 8vo. Cloth, \$4.00.

One has to look sharp and think hard when investigating this "study in bioenergies." The author has written down his observations and the conclusions of a forty years' active study and teaching. His conclusion is expressed in the sub-title that evolution is a matter of bioenergy manifested under the forms of thermic, lumic, chemic, electric, and especially these three, namely, biotic, cognitive, and cogitic changes. In this classification and the resultant definitions he is at variance with Dr. Adami, whose "Medical Contributions to the Study of Evolution" was reviewed in the February "New York State Journal of Medicine." These two books are somewhat complementary and should be read together. Dr. Adami's is the more interesting because dealing with better known elements; but this study is a timely and needed recast of evolutionary principles and well merits the close study which it requires. After defining the probable primitive and universal electron made up of the two constituents, energy and ether particles, and showing the relations and transformations of energy, and in the next chapter, the relation of inorganic to organic bodies, the author lays the foundations for his conception of energies of the organic world as stated above, the biotic, cognitive and cogitic. Macfarlane considers the bridge between the inorganic and organic to be more than biochemical change, and posits the existence of energies in the inorganic which by reductions and accumulations outreach to further developmental planes. So the biotic energy interpenetrates and integrates with the chemic and electric of the inorganic crystalloids and colloids to raise them to primitive organic life; protoplasm. Then

chlorophyl, later chromatin and a definite nucleus was reached, and lo! matter was living. Life implies cognitive energy and the cogitic easily is raised upon that. The next fifty pages contain elaborations of the biotic and cognitive energies and are followed first by a review of the formed constituents of organisms and later by a highly interesting discussion of the five cooperating causes in organic evolution. These five are named as Heredity, Environment, Proenvironment, Selection, and Reproduction; the cooperative action of these the author names "Pentamorphogeny." A special delineation of proenvironment is interestingly made in the latter part of the study when the development of the brain is predicated upon the "increasingly abundant use of the anterior snout part of the head." Dr. Macfarlane considers the law of proenvironment as ranking side by side with heredity and environment; he indeed speaks of it as having far-reaching importance which can scarcely yet be estimated. If one did not know where to begin reading the volume, being perhaps a trifle impressed by its actual weight as a warning of its philosophical heaviness, the pages of this chapter dealing with this new maybe, or at least rediscovered factor will be sure to captivate his attention. It will be easy then to follow with chapter nine on the law of proenvironment. The reader will be wise to turn to page 629 and the short chapter on the operation of the law of proenvironment in the evolution of man. That will surely catch him if the other did not. The intervening chapters have taken up the plants and animals, very technically and interesting rather as establishing proofs of the author's theory, and the relation of the higher forms to man. Morals and Religion occupy some hundred pages, entertainingly inquired into from a deistic basis. Competitive and co-operative systems among the lower animals are then discussed, and the "conclusion of the whole matter" is in the two last chapters entitled "Organization in Relation to Environment," and "Probable Future Advances in Evolution." The average doctor will hardly dig deep into this volume; but whoever does will have much to think of, to question, to agree in and to disallow and then may well take a long walk and forget his science, and in green grass and beside quiet water be glad he is a man anyway no matter where he came from or how wondrously he is framed.

A. F. E.

NERVES AND THE WAR

NERVES AND THE WAR. By Annie Payson Call. Boston, Little, Brown, and Co., 1918. 220 pp. 12mo. Cloth, \$1.25.

This little work, one of a series of books

written by the same author along kindred lines, may perhaps best be described by the musical term "Theme with Variations." The theme is the economy of nerve force thru tions correspond to the different chapters, rest and concentration of effort. The variety each one dealing with its particular variant of the theme. Thus we find the original motif treated in its relationship to shell-shock, suffering, the hospital, courage etc. The book is directed primarily to the soldier, but it is adaptable to the general reader, and much of its advice will be found to be sound.

GENITO-URINARY DISEASES AND SYPHILIS

A COMPEND OF GENITO-URINARY DISEASES AND SYPHILIS, INCLUDING THEIR SURGERY AND TREATMENT. By Charles S. Hirsch, M. D. Third Edition, Revised. Philadelphia, P. Blakiston's Son & Co., 1918. 347 pp. 59 Illustrations. 12mo. Cloth, \$1.50.

This Compend, compiled by Dr. Charles S. Hirsch, is a very useful volume to the student, or the general practitioner who wishes to review the complete and advanced methods of diagnosis and treatment of these subjects. Even to the specialists it will be of use in obscure or difficult cases to have in this handy manual, a brief classified account of means and measures, one of which may have been forgotten. The excellent paper and print, the compact form and clear text, make it a most valuable manual into which is packed, but not confusedly crowded, a large amount of definite and useful information.

STURDIVANT READ.

FOOD

FOOD: ITS COMPOSITION AND PREPARATION. A Text-Book for Classes in Household Science. By Mary D. Dowd and Jean D. Jameson, Teachers in Household Science, Washington Irving High School, New York, John Wiley and Sons, 1918. Cloth, \$1.25. 173 Pages 42 figures. 12 mo.

This is one of Wiley's Technical Series of elementary text books. It is very elementary in scope and is a combination of a text book and a laboratory manual, although the experiments are very simple. As might be expected some of the statements could be improved in scientific accuracy. It contains a great deal of information for the beginner in the study of foods and domestic science, and will probably appeal to teachers of the latter science. The text is followed by a

glossary of technical terms and a fairly good index. Many of the definitions in the glossary are lacking in accuracy and definiteness, and will bear careful revision in future editions.

E. H. P.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

STUDIES IN ELECTRO-PHYSIOLOGY (Animal and Vegetable). By Arthur E. Baines, Consulting Electrician. New York E. P. Dutton and Co., 1918. 291 pp. Illustrated. Plates. 8vo. \$5.00.

STUDIES IN ELECTRO-PATHOLOGY. By A. White Robertson, L. R. C. P., and S. E., Temp. Major, R. A. M. C. New York, E. P. Dutton and Co., 1918. 304 pp. Illustrated. Plates. 8vo. \$5.00.

SURGICAL TREATMENT. A Practical Treatise on the Therapy of Surgical Diseases for the Use of Practitioners and Students of Surgery. By James Peter Warbasse, M. D. Volume III. 861 pp. 864 Illustrations. Separate Desk Index to Vols. I, II, III. 123 pp. 8vo. Philadelphia and London, W. B. Saunders Company, 1919. Cloth, \$30.00 per set (Three volumes and the Index Volume).

HOSPITAL ACCOUNTING AND STATISTICS. Compiled and Arranged by William V. S. Thorne, Treasurer and Member of the Board of Managers of the Presbyterian Hospital in the City of New York, etc. Fourth Edition. New York, E. P. Dutton and Co., 1918. 119 pp. 8vo. Cloth, \$1.50.

SURGERY AT A CASUALTY CLEARING STATION. By Cuthbert Wallace, C. M. G., F. R. C. S. and John Fraser, M. C., F. R. C. S. E. London, A. & C. Black, Ltd., New York, The Macmillan Company, 1918. 320 pp. Illustrated. 12mo. Cloth, \$4.00.

THE CAUSES AND COURSE OF ORGANIC EVOLUTION. A Study in Bioenergetics. By John Muirhead Macfarlane, D. Sc. New York, The Macmillan Company, 1918. 875 pp. Illustrated. 8vo. Cloth, \$4.00.

A COMPEND OF GENITO-URINARY DISEASES AND SYPHILIS, INCLUDING THEIR SURGERY AND TREATMENT. By Charles S. Hirsch, M. D. Third Edition, revised. Philadelphia, P. Blakiston's Son and Company, 1918. 347 pp. 59 Illustrations. 12mo. Cloth, \$1.50.

THE DISABLED SOLDIER. By Douglas C. McMurtrie, Director, Red Cross Institute for Crippled and Disabled Men. New York, The Macmillan Company, 1919. 232 pp. Illustrated. 12mo. Cloth, \$2.00.

ROENTGENOTHERAPY. By Albert Franklin Tyler, B. Sc., M. D. St. Louis, C. V. Mosby Company, 1918. 162 pp. 111 Illustrations. 8vo. Cloth, \$2.50.

AUTOBIOGRAPHY OF AN ANDROGYNE. By Earl Lind ("Ralph Werther"—"Jennie June"). Edited, with Introduction by Alfred W. Herog, Ph. B., A. M., M. D. New York, "The Medical Legal Journal," 1918. 265 pp. Illustrated. 12mo. Price, \$4.00. Sold only to physicians, lawyers, legislators, psychologists, and sociologists.

Medical Society of the County of Kings

MONTHLY BULLETIN TO MEMBERS

DECEMBER 1918-FEBRUARY 1919

MEDICAL SOCIETY OF THE COUNTY OF KINGS

Stated Meeting, Dec. 17, 1918.

The President, Dr. Frederick C. Holden, in the chair. There were 100 members present. The meeting was called to order at 9 p. m., and the minutes of the previous meeting were read, approved and placed on file.

Report of the Council.

The Council reported favorably upon the following applications for membership:

Alice R. Bowman, 976 St. Johns Place; N. Y. M. C. & H. for Wom., 1899; J. H. Schall, Mary E. Potter; Nov. '18.

Louis Greenburg, 4516 12th Ave.; P. & S., N. Y., 1908; M. B. Gordon, Memb. Com.; May '18.

Richard Henry Hatfield, 1489 Union St.; L. I. C. H., 1902; J. S. Read, Memb. Com.; May '18.

Adele L. Palmitier, 1556 New York Ave.; N. Y. Ecl. M. Coll., 1889; Mary E. Potter, B. F. Corwin; Nov. '18.

Alice A. Squire, 345 5th St.; N. Y. M. C. & H. for Wom., 1901; Mary E. Potter, Harriet W. Hale; Nov. '18.

For Reinstatement

William L. Chapman, 114 Lafayette Ave.; Bellevue, 1893; Dec. '18.

Election of Members

The following, duly proposed and elected by the Council, were declared elected to active membership.

Subject to Chapter XVI., By-Laws.

Harry Apfel, 327 Pennsylvania Ave.; L. I. C. H., 1908; F. C. Holden, H. B. Matthews; May '18.

John J. Black, 87 India St.; Fordham, 1918; Alfred Bell, Memb. Com.; May '18.

Nathan S. Hanelin, 368 41st St.; P. & S., Balt., 1911; J. Wachsmann, Memb. Com., May '18.

Herbert H. Leonhardt, 156 Woodruff Ave.; L. I. C. H., 1909; A. M. Judd, Memb. Com.; May '18.

John F. Lundoff, 470 46th St.; L. I. C. H., 1912; N. P. Geis, Memb. Com.; May '18.

Joseph J. McGarry, 414 Bergen St.; Fordham, 1918; Alfred Bell, Memb. Com.; May '18.

Gaetano G. Nocisia, 135 Prospect Park, W.; Albany, 1913; G. Kasper, Memb. Com.; May '18.

Philip Oginsz, 490 Stone Avenue; L. I. C. H., 1907; A. M. Judd, Memb. Com.; Oct. '18.

Benjamin H. Shapiro, 610 10th Street; Albany, 1915; B. A. Fedde, Memb. Com.; Oct. '18.

For Reinstatement

E. M. Bullwinkel, 87 South 9th St.; L. I. C. H., 1898; Nov. '18.

Application for Membership

Applications for membership were received from the following:

Mary E. Fish-Fleckles, 255 Macon St.; N. Y. M. C. & H. for Wom., 1894; Harriet W. Hale, Mary E. Potter; Dec. '18.

Philip Goldfader, 123 Reid Avenue; L. I. C. H., 1914; F. L. Cochrane, N. P. Rathbun; Dec. '18.

Harry Koster, 921 Eastern Parkway; L. I. C. H., 1914; J. C. Cardwell, F. Weisbrod; Dec. '18.

Foster H. Platt, 703 Sterling Place; Univ. Vt., 1915; E. L. Cochrane, H. W. Vinicombe; Dec. '18.

Leopold Rein, 61 Barbey St.; Cornell, 1911; H. B. Matthews, Memb. Com.; Dec. '18.

Alexander A. Wemmell, 276 Clifton Place; L. I. C. H., 1912; W. F. Campbell, Mary E. Potter; Dec. '18.

Scientific Program

Paper: "Frequent Difficulties in the Diagnosis of Diseases of the Nervous System." By Frederick Tilney, M. D., Manhattan.

Dr. Tilney's Paper was discussed by Dr. Browning, Dr. Harris and Dr. Simon Rothenberg.

The tellers presented the following report: There were 81 votes cast. Those elected are indicated by an asterisk (*)

For President, Stephen H. Lutz*, received 80 votes.

For Vice President, John A. Lee*, received 81 votes.

For Secretary, Charles E. Scofield*, received 80 votes.

For Asso. Secretary, Lewis P. Addoms*, received 81 votes.

For Treasurer, Robert L. Moorhead*, received 80 votes.

For Asso. Treasurer, Alfred Bell*, received 80 votes.

For Directing Librarian, William Brown-ing*, received 80 votes.

For Trustee, Frederick Holden*, received 80 votes.

For Censors (5 to be chosen), John G. Williams*, received 56 votes; O. Paul Humpstone*, received 64 votes; William Pfeiffer*, received 47 votes; Arthur H. Bogart*, received 54 votes; Howard T. Langworthy*, received 52 votes; Edwin A. Griffin, received 41 votes; Thomas M. Brennan, received 37 votes.

For 12 Delegates to the Medical Society of the State of New York for two years (1919-1920).

Sylvester J. McNamara,* William F. Campbell,* John J. Sheehy,* Walter D. Ludlum,* Russell S. Fowler,* William Pfeiffer,* William A. Jewett,* Elias H. Bartley,* Charles E. Scofield,* James C. Hancock,* Roger Durham,* William Linder,*

For 23 Alternate Delegates to the Medical Society of the State of New York for one year, (1919). A. F. R. Andreson,* J. M. Auwerda,* Alfred C. Beck,* Eliot Bishop,* G. L. Buist,* E. E. Cornwall,* W. H. Donnelly,* A. F. Erdmann,* H. F. Graham,* W. C. Griswold,* Otto V. Huffman, A. C. Jacobson,* Henry Joachim,* Leon Louria,* H. B. Matthews,* Louis L. Nichols,* F. C. Paffard,* N. P. Rathbun,* J. Sturdivant Read,* R. W. Sherman,* E. W. Skelton,* Esmonde B. Smith,* Alfred W. White.*

The following members acted as tellers: Harvey B. Matthews, Chairman, Robert M. Rogers, W. H. Donnelly, Frederick Schroeder, Jr., W. C. Griswold.

Dr. Lutz moved that the dues for 1919 be the same as last year \$10.00 for the Society, \$3.00 for the State Society and a War Tax of \$2.00. This motion was seconded and carried.

The President announced the names of the officers elected for 1919 and the meeting adjourned at 11 p. m.

C. E. SCOFIELD,
per E. K.
Secretary.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Stated Meeting, Jan. 21, 1919.

The President, Dr. Stephen H. Lutz, in the chair. There were about 100 members present. The meeting was called to order at 9 p. m., and the minutes of the previous meeting were read, approved and placed on file.

The annual reports of the Treasurer, Directing Librarian, Membership Committee,

and Board of Trustees were read, approved and placed on file.

Report of the Council.

The Council reported favorably upon the following applications for membership.

Abraham L. Cardozo, 635 St. Marks Ave.; L. I. C. H., 1917; H. B. Matthews, Memb. Com.; May '18.

Simon M. Chess, 222 17th Street; L. I. C. H., 1912; H. B. Matthews, Memb. Com.; Oct. '18.

Philip Goldfader, 123 Reid Avenue; L. I. C. H., 1914; F. L. Cochrane; N. P. Rathbun; Dec. '18.

Harry Koster, 921 Eastern Parkway; L. I. C. H., 1914; J. C. Cardwell, F. Weisbrod; Dec. '18.

Leopold Rein, 61 Barbey St.; Cornell, 1911; H. B. Matthews, Memb. Com.; Dec. '18.

Alexander A. Wemmell, 276 Clifton Place; L. I. C. H., 1912; W. F. Campbell; Mary E. Potter; Dec. '18.

Florence Wilson, Brooklyn Hospital; Woman's M. Coll. Pa., 1917; F. C. Holden, W. B. Brader; Nov. '18.

For Reinstatement

David Feiner, 218 South 3rd Street; Univ. & Bell, 1912; Jan. '19.

William A. Griffith, 55 Hart Street; L. I. C. H., 1889; Jan. '19.

By Transfer.

James A. O'Reilly, 217 St. James Place; P. & S., N. Y., 1912; Sullivan County Med. Soc.

Election of Members.

The following, duly proposed and elected by the Council, were declared elected to active membership:

Alice R. Bowman, 976 St. Johns Place; N. Y. M. C. & H. for Wom., 1899; J. H. Schall, Mary E. Potter; Nov. '18.

Louis Greenberg, 4516 12th Ave.; P. & S., N. Y., 1908; M. B. Gordon, Memb. Com.; May '18.

Richard Henry Hatfield, 1489 Union St.; L. I. C. H., 1902; J. S. Read, Memb. Com.; May '18.

Alice A. Squire, 345 5th St.; N. Y. M. C. & H. for Wom., 1901; Mary E. Potter, Harriet W. Hale; Nov. '18.

For Reinstatement

William L. Chapman, 114 Lafayette Ave.; Bellevue, 1893; Dec. '18.

Application for Membership.

Applications for membership were received from the following:

George E. Beatty, 130 Avenue C.; L. I. C. H., 1912; A. H. Bogart; C. A. Anderson; Jan. '19.

John H. Erling, Jr., 1017 39th Street; L. I. C. H., 1894; Wm. Linder, Memb. Com.; Jan. '19.

Alexander Hitlin, 685 Willoughby Ave.; P. & S., N. Y., 1905; C. E. Scofield, Memb. Com.; Jan. '19.

James J. Shay, 325 57th Street; L. I. C. H., 1912; F. C. Paffard, T. M. Brennan; Jan. '19.

Dr. Browning moved that the President be empowered and directed to appoint a Planning Committee to consist of five or more members to take up the matter of an enlargement or extension of our building, and that said Committee be requested to report within the next few months. This motion was carried.

The Board of Trustees recommended that some means be adopted to reduce the mortgage on the building. It was moved, seconded and carried to be referred to the trustees to report at some later meeting.

It was moved and seconded that the Society employ a clerk.

Scientific Program.

Paper: "Influenza-Pneumonia and Its Treatment with Bacterial Protein Injection." (The report of a series of cases showing that a reduction of the mortality to 10% may be secured by this new method of treatment.) By Major Dudley D. Roberts, Base Hospital, Fort Benjamin, Harrison, Ind.

Major Dudley D. Roberts' paper was discussed by Dr. Leon Louria.

The request for funds from the Brooklyn Victory Celebration Committee was read. It was moved, seconded and carried that the Society endorse the resolutions of the Associated Civic Associations of Brooklyn, which urges a rapid completion of the Ashland Place connection of the Fulton Street elevated with the city subway system.

The meeting adjourned at 11:15.

C. E. SCOFIELD,
Sec'y.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Stated Meeting, Feb. 18, 1919.

The President, Dr. Stephen H. Lutz, in the chair. There were about 100 members present. The meeting was called to order at 8:45 p. m., and the minutes of the previous meeting were read and approved, with the exception that the committee mentioned in Dr. Browning's motion should be called a Planning Committee to consist of five or more members to take up the matter of an enlargement or an extension of our building.

Report of the Council.

The Council reported favorably upon the following applications for membership:

Richard Birnie, 646 Herkimer St.; Harvard, 1911; H. B. Matthews, Memb. Com.; May '18.

Joseph A. Driscoll, 171 Washington Park; L. I. C. H., 1908; H. B. Matthews, Memb. Com.; May '18.

John H. Erling, Jr., 1017 39th Street; L. I. C. H., 1894; Wm. Linder, Memb. Com.; Jan. '19.

For Reinstatement

Max Goldstein, 331 Roebling Street; L. I. C. H., 1910; Feb. '19.

Election of Members.

The following, duly proposed and elected by the Council, were declared elected to active membership:

Abraham L. Cardozo, 635 St. Marks Ave.; L. I. C. H., 1917; H. B. Matthews, Memb. Com.; May '18.

Simon M. Chess, 222 17th Street; L. I. C. H., 1912; H. B. Matthews, Memb. Com.; Oct. '18.

Philip Goldfader, 123 Reid Avenue; L. I. C. H., 1914; F. L. Cochrane, N. P. Rathbun; Dec. '18.

Harry Koster, 921 Eastern Parkway; L. I. C. H., 1914; J. C. Cardwell, F. Weisbrod; Dec. '18.

Leopold Rein, 61 Barbey St.; Cornell, 1911; H. B. Matthews, Memb. Com.; Dec. '18.

Alexander A. Wemmell, 276 Clifton Place; L. I. C. H., 1912; W. F. Campbell, Mary E. Potter; Dec. '18.

Florence Wilson, Brooklyn Hospital; Woman's M. Coll. Pa., 1917; F. C. Holden, W. B. Brader; Nov. '18.

For Reinstatement

David Feiner, 218 South 3rd Street; Univ. & Bell, 1912; Jan. '19.

William A. Griffith, 55 Hart Street; L. I. C. H., 1889; Jan. '19.

By Transfer.

James A. O'Reilly, 217 St. James Place; P. & S., N. Y., 1912; Sullivan County Med. Soc.

Application for Membership.

Applications for membership were received from the following:

Edward Frothingham, Pelham Bay Pk., N. Y.; N. Y. Hom. M. Coll., 1918; W. Kinne, J. A. Cooley; Feb. '19.

A communication urging members to join the Brooklyn Chamber of Commerce was read, as was also the latest ruling of the

Commissioner of the Department of Narcotic Drug Control relative to records to be kept by physicians of cocaine when administered as a local anesthetic.

The President announced that the Historical Committee would be composed of Drs. Lewis S. Pilcher, William Schroeder, William Browning, Herbert D. Schenck, James M. Winfield, Arthur C. Jacobson and William C. Braislin.

Scientific Program.

Paper: "Tobacco and Tobacco Amblyopia."
By P. Chalmers Jameson, M. D.

Dr. Jameson's paper was discussed by Drs. Nathaniel Rathbun, Henry G. Webster, James W. Ingalls, Dr. J. Richard Kevin's, Remarks on Pending Health Insurance Bill

were discussed by Drs. J. P. Davin, Henry G. Webster and A. M. Judd.

It was moved, seconded and carried that the Legislative Committee be requested to act with the Legislative Committees throughout Brooklyn, with Nurses, Drug-gists, Undertakers, and Dentists organizations and that they be instructed by this Society to go to Albany and oppose the Davenport-Donahue Bill. It was moved, seconded and carried that Dr. Henry G. Webster head a committee to collect funds for propaganda against this Bill. The collecting started at once, and \$374 had been collected when the meeting adjourned.

The meeting adjourned at 11 p. m.

C. S. SCOFIELD,

Secy.

per C. F.

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NEWER METHODS OF TREATMENT IN PULMONARY TUBERCULOSIS.

Moses Kahn, M. D.

Brooklyn, New York.

MR. CHAIRMAN, Ladies, and Gentlemen, of the Medical Society of the County of Kings:

It is indeed a great honor to be permitted to speak before so large and intelligent a body of scientific men. In the brief time which is allotted to me, I will endeavor to give you a direct and brief summary of the best there is today in the treatment of this dreaded disease; gleaned from my past nine years' work in hospitals specially devoted to this one disease, in three different states.

The Indications for Treatment.—The ideal thing is to remove the cause. To kill the bacilli in the body. Or to increase the resisting powers of the patient, so as to make the soil unfavorable for the growth of the germs. But thus far we have nothing which will kill the bacilli, without killing the patient.

Air, Food and Rest.—Outdoor pure air, plenty of good food, and rest, are the secrets of the cure.

Effects of the different forms of disease on the Treatment.—We vary the treatment to suit the clinical manifestations in the individual case, and according to the clinical type of the case. A very mild case receives different treatment from a severe case.

In most cases tuberculosis recovers spontaneously.

PROPHYLAXIS.

Preventing Infection.—*Infants.*—Those under 2 years must be prevented from tuberculous infection. Infants contract tuberculosis easily, and it is generally fatal to them. Grandparents sometimes have quiescent tuberculosis, and these often infect infants. An infant should not stay in a home where a case of tuberculosis exists.

Milk from an unknown source, should be pasteurized or boiled.

Prevention in children over 3 years old.—These infections are not so dangerous. Children should not associate with active cases of tuberculosis.

Prevention in Adults.—Nearly all persons by the age of 16 years especially in cities, have been infected with tubercle bacilli. Hence

Baldwin said, "Adults stand very little danger by close contact with tuberculosis, and not at all in ordinary association."

Prevention of Phthisis.—The reinfection comes from within. Certain things reduce the normal resisting power of the body and the dormant bacilli multiply. These are poor hygienic and economic factors, low wages, insufficient rooms, the kind of work, dissipation, alcoholism, loss of sleep, overwork, worry, lack of fresh air and sunshine, insufficient rest, lack of outdoor exercise.

Phthisiophobia.—Phthisis patients should not be hounded, or refused employment. Easy positions should be gotten for them, so that they can be independent. The place of employment of a patient should not be visited by the health department, as this often causes dismissal, and this means starvation.

Disposal of sputum.—This is the biggest means of prophylaxis. Spitting should be prohibited universally.

The best is the use of pasteboard sputum cups, kept in a tin frame-holder. These are burnt in a coal fire.

Duties of the Government in the Prevention of Phthisis.—The conditions causing phthisis should be stopped. Dwellings should be sanitary and hygienic. Tenement laws should be enforced. Every room should have a window.

Homes and factories should have sunlight and ventilation.

Marriage of the Tuberculous.—Newborn children will be infected and die, if they remain in the home.

Pregnancy, childbirth, and lactation are dangerous for a tuberculous woman.

How to Manage the Case.—The patient should be told the diagnosis in a pleasant way, because we need his cooperation.

The sleeping room should have a good location, with lots of sunshine and windows. It is best to move to the outskirts of the city or to a suburb. All work must be stopped at once, physical and mental.

Clothing.—In winter a fur coat and extra blankets are needed.

Smoking, is best stopped.

Occupation.—This applies to the convalescent and recovered cases. While the disease is active, there should be no work, physical or mental.

After recovery it is wise to take up the old occupation, but in an easier way. New occupation means low wages and longer hours. Dusty trades are not wise. Outdoor work is good but not essential. Labor on a farm is generally too severe. The secret is *easy* work. Exposure to severe storms and long hours are bad. The old occupation is generally best, because the patient is trained to it, and he earns the most, with the least effort.

THE REST CURE.

Principles Underlying the Rest Cure.—Nature rests the diseased lung, as shown by the spasm of the overlying muscles. Pleural adhesions prevent lung movements, thus causing scar formation.

Surgeons treat tubercular bones and joints by rest, by splints and plaster of paris. Artificial pneumothorax puts the lung at rest. Fever indicates activity of tuberculosis disease. Under rest, the fever declines, cough lessens, appetite returns, and the patient gains weight.

Rest and Exercise in Phthisis.—Formerly exercise was advised. Cases of active, progressive phthisis, with fever anorexia, emaciation, etc., which are put on exercise, generally die. Later when the disease has localized itself, and the temperature is normal, appetite good, and strength normal, exercise is indicated.

Rest and exercise have their indications and Contraindications.

Indications for Rest.—Nature puts a patient sick with active disease, at rest. Here rest saves life.

Active cases with fever, rapid pulse, anorexia, loss of weight, weakness, etc., should be at perfect rest in bed. Pulse and temperature and general symptoms are often of more guidance than physical signs.

Dyspnoea means that rest is needed.

Technic.—The bed is placed by the open window, so that the patient can see the active world.

When the general symptoms are gone, graduated work, or graduated exercise, is in order. By exercise, I mean walking.

Exercise.—When pulse and temperature become normal, and remain so for several days, walking is begun. At first he walks one mile, and the effects on pulse and temperature are watched. A walk of 1 or 2 miles a day is prescribed. If this does not raise the pulse or temperature, the walk is increased after 2 weeks. If no harm is done after 2 more weeks, work is prescribed under supervision, for one hour a day. The hours of work are gradually increased every 2 weeks, until the patient can do a full day's work.

If the temperature at any time becomes elevated, the patient returns to the full rest cure. Afebrile patients in poor general condition, are not allowed to work.

OPEN AIR TREATMENT.

Fresh air is one of the vital points in the cure of Phthisis. This can be gotten at the home of the average patient.

Where open air treatment can be used.—The patient is placed continuously, day and night, in pure, fresh air, preferably outdoors. The country is best. Results are obtained in cities which compare favorably with climatic and institutional treatment. Congested neighborhoods and tenements are not suitable.

Suburbs are good places. Treatment at home does not entail acclimatization after return to work. It prevents separation from family and friends, fatigue of travel, and homesickness.

Open Air and Climatic Treatment Compared.—There is no climate in which tuberculosis does not appear, or where a case of tuberculosis will surely recover, even when sent there in the first stage.

In climatic resorts the patient must follow certain rules, if he expects a cure. Irregular living in the mountains will make a tubercular patient worse, just the same as it will in the city. A careful life in any climate improves the average tubercular case, no matter where he lives.

Certain climatic resorts have contraindications.

Technic of Treatment.—In a large house, or in a large, sunny, well ventilated room, with the windows fully open, in a street not crowded, a case is treated. It is best to move to the country, or the outskirts of the city, or to a suburb.

The average bedroom is suitable. By removal of the windows, it becomes an open air sleeping quarter. The room must be large. Rooms must open into the street or yard. Sunshine is essential. On a protected porch is best.

Afebrile patients should be outdoors all day. They can recline on reclining chairs all day in the front or back yard, or on the porch. He can read or do light work, according as the physician directs. Thermometers given to patients, guide them as to the effect of exercise or work.

Sleeping porches.—Tent houses or canvas bungalows are now made.

The best is a porch, for day and night. The sides of the porch are protected from storms by movable glass doors and shades.

OPEN-AIR TREATMENT OF FEBRILE PATIENTS.

Febrile patients must remain in bed outdoors as long as the fever lasts. Tents placed on roofs of houses, can be used.

The good effects of open-air treatment are remarkable in febrile cases. The general condition improves, and a feeling of well-being follows. The symptoms disappear.

Results of Open-Air Treatment.—In acute progressive cases, we don't expect much. In subacute cases, the process is sometimes arrested, and the case becomes one of chronic phthisis. The open air treatment gives best results in incipient chronic phthisis. It cures in the great majority of incipient cases. The outlook of the patient is changed in a week or two, and improvement is progressive.

A good appetite and digestion, and disappearance of fever, night sweats, insomnia, and cough follow.

CLIMATIC TREATMENT.

Most patients are suitable for home treatment. Autopsies show that many persons have healed tuberculous lesions in the lungs, who have never had climatic treatment, proving that tuberculosis is curable in all climates.

Statistics show the percentage of recoveries the same for all climates.

Cost of Climatic Treatment.—If a patient has no funds, it is wise to remain home. A minimum of \$700, exclusive of carfare, is needed for 10 months. The cost of extras, in the case of advanced cases, and nurses, may be prohibitive to the average consumptive, and it is wiser to stay home, where good food, care and comforts far outweigh the advantage of climate, if without the necessities.

Effects of Change of Surroundings.—Climatic treatment is an important help. This is produced by a change in surroundings, it makes no difference where the locality is selected.

Where to Send Patients.—It makes little difference where they go; as long as they have good surroundings, away from the cares of home. There is no climate which cures phthisis. All well managed sanitariums, located in diverse climates, show the same proportion of cures, proving that climate is of minor importance.

Mountain Climates.—When a patient goes to a mountain climate,

without money, and starves, he will die. If he works in a mountain climate, while his disease is active, he will die.

High climates are not a sure cure for tuberculosis.

Contraindications to High Climates—are hopeless cases, acute cases, dyspnoea, rapid hearts, heart weakness, and much neurosis.

Sea Climate.—Here cardiac and renal complicated cases can be sent.

Desert climates.—Here are sent cases complicated by bronchitis and emphysema.

A Warning.—It is not only good air, but a good home and good food, that the patient must have. Therefore he is often better off at home, under open air treatment.

DIET.

Phthisis causes loss of weight, and so it requires much and sometimes excessive food to make good the great loss from toxins, fever, and subsequent wasting.

Individualization in diet is best.

Superalimentation.—The gain in weight produced by over-feeding does not always mean that the lung is healing. Over-feeding may cause stomach and intestinal trouble and weaken the patient.

How much food should we give? The food is increased so that the patient gains in weight, and remains at his normal weight before the beginning of the disease.

A patient with normal appetite and digestion needs no special diet.

Patients losing steadily in weight and strength, need more and better food.

Dangers of Overfeeding.—This puts a dangerous burden upon the stomach, intestines, liver, kidneys, etc.

MEDICAL TREATMENT.

We have no plant, chemical, or physical remedy which cures tuberculosis.

Creosote.—If it does not derange the stomach, it may ease the cough and expectoration. So also creosote carbonate or guaiacol carbonate.

Arsenic is a good tonic.

Iodides are dangerous in pulmonary tuberculosis.

Succinamide of mercury does not cure tuberculosis.

Hypophosphites and glycerophosphites are good tonics.

Cod liver oil deranges most stomachs.

None of the above drugs cure tuberculosis.

TUBERCULIN TREATMENT.

As yet we have no specific remedy for tuberculosis; we have no substance which will cure or arrest the disease, except the open-air rest treatment. Tuberculin is one help to other therapeutic methods, which should be used in selected cases. Without the open air rest treatment, tuberculin fails. Tuberculin alone does not arrest tuberculosis. In the public sanitariums in this country, very little tuberculin is given.

Modern tuberculin treatment aims at not producing reactions, by the giving of minute doses, cautiously increased to a point, just short of reactions.

Dose. The initial dose should be about 0.0,000,005 mg.

It is best given to moderately advanced cases, who have not improved under a course of hygienic treatment. It should not be given to febrile cases.

Dangers of Tuberculin Treatment.—It can do great harm when unwisely administered. It then mobilizes the bacilli, and favors rapid spread of the disease; also rapid breaking down of tuberculous areas, cheesy pneumonic, and spread of military tubercles.

SYMPTOMATIC TREATMENT.

Cough.—Purity of air, and rest reduce cough. This is gotten by outdoor life, and full ventilation of the room. To some extent patients can be taught to control their cough, when no expectoration is to come up.

Smoking is best omitted.

In hopeless cases, cough is controlled by morphine.

In incipients creosote preparations do well.

Or inhalations of Tr. benzoin, creosote, eucalyptol, or menthol.

Cannabis indica, *hyoscyamus*, or *gelsemium* may be used.

At times, opiates are needed. But in incipient cases, these should not be given, on account of the danger of the habit. Codein is preferred. Heroin may be used.

Expectoration.—It should not be suppressed. In foul-smelling sputum, antiseptic inhalations can be used; turpentine, iodine, creosote, menthol or eucalyptol.

Fever.—Fever is caused by active disease. The whole future of the patient depends on the treatment of the fever.

In incipient cases fever demands rest in bed, to prevent the spread of the disease.

The patient is placed in bed outdoors on a porch, or in a room with all windows fully open.

A rise in temperature in chronic phthisis, demands rest in bed till the temperature returns to normal.

In high fever, perfect rest is required.

In certain cases, artificial pneumothorax is an excellent remedy.

Antipyretics.—These should rarely be used.

Night Sweats.—Open air treatment is the best prevention. Sleeping in the open air, with light covering is best.

As aids are used, whiskey, or atropin, or agaracin; friction of the body with tepid water, vinegar or alcohol.

Hemoptysis.—Place the patient at absolute rest in bed. With this, the best remedy is a hypodermic of morphine. Tying the extremities in copious hemorrhages may save life.

Emetin, salt, nitrites, adrenalin, ergot, atropin, gelatin, calcium lactate, acetate and chloride and blood serum, are also used.

Artificial pneumothorax is good in severe cases, if we know from which side the bleeding occurs.

Diet in hemoptysis.—Hot and solid foods are avoided. Give less liquids, no stimulants.

Control the cough by codein or other opiate, till the hemorrhage is over.

Dyspnoea.—Toxic dyspnoea, due to active disease, is treated by rest. For dyspnoea at night in the later stages, opiates are used.

Cardiac Weakness.—This needs rest in bed. No stimulants, and excitement is advised against.

Anorexia.—Open air life, regulated exercises, and regular meals, cure. Avoid dietetic errors and overfeeding.

Diarrhea.—This may be due to overfeeding. It might be caused by tubercular ulcer, or amyloid disease of the intestine.

The usual diet and remedies are used.

OPERATIVE TREATMENT.—ARTIFICIAL PNEUMOTHORAX.

Spontaneous pneumothorax is generally fatal. But rarely, it causes arrest of the disease. I reported such a case last year. Artificial pneumothorax is now one of the recognized methods of treatment of pulmonary tuberculosis. It is used in cases in which everything else has been tried.

Principles of the Treatment.—We inject into the pleural cavity a sterile gas which collapses the diseased lung. The lung is thus put at rest and given a chance to heal. In surgical tuberculosis, rest cures. It acts like a splint.

Diseased parts and cavity walls are brought together, and scar tissue forms. Pus, in cavities and inflammatory areas is squeezed out as from a sponge. Mixed infection is eliminated. Fever, night sweats and weakness disappear.

Technique.—There are dangers. The aim is to inject gas into the pleural cavity, and not in any other place.

The Brauer Method.—Incise the chest wall, dissect down to the pleura through the fascia, and separate the intercostal muscles with a blunt instrument. On exposing the parietal pleura, puncture with a blunt needle or canula, and gas is let in. This method is only used when the Forlanini-Murphy method fails, due to pleural adhesions.

The Forlanini-Murphy Method.—This is a puncture of the chest wall with an especially constructed hollow needle, which is connected with a gas bottle, and a water manometer through a T-shaped tube. When the lumen of the needle enters the pleural cavity, the gas is allowed to flow in, by the suction or negative pressure in the pleural cavity, as well as by positive pressure, which is sometimes used as the gas bottle.

The visceral pleura and lung must not be penetrated. If air passes into a blood vessel, gas embolism is produced.

Apparatus.—To avoid this accident, we use a manometer. There are 2 graduated bottles connected by a rubber tube, one containing gas and the other a fluid, and the fluid flows into the other bottle, displacing the gas, which is sucked or pressed into the pleural cavity through a tube and a special needle. This tube is T-shaped and provided with a three-way stopcock, of which one limb communicates with the gas bottle, the second with the needle, and the third with the manometer.

The Use of the Manometer.—The safety of the apparatus lies in the manometer. When the needle enters the pleural cavity, the air in the connecting tube is rarified, because the vacuum in the pleural sac aspirates its air content, and the fluid in the closed limb of the manometer is sucked up toward the needle, i. e., from the open

into the closed limb. Also the respiratory movements are recorded in the manometer, which shows free oscillations of the level of the fluid.

The manometer shows whether the needle is in the pleural cavity or not.

The Gas Used.—Either nitrogen or ordinary air is used.

The Place for Injection.—Avoid the site of adhesions. The best place is in the anterior or posterior axillary line, at the 9th space posteriorly for apex disease, or in the 3rd space external to the mammary line for lower lobe disease.

If adhesions are present we must puncture elsewhere.

Fluoroscope and skiagraph may help.

Tidal percussion of the margin of the lung, especially at the base, assists. Good motion of the lung margin shows freedom from pleural adhesions.

If the first puncture does not show negative pressure in the manometer, another puncture is made at a different place.

Novocain is first used to prevent pleural shock. This is injected down to the pleura.

Thoracentesis.—Do not penetrate the lung. This might cause a spontaneous pneumothorax.

Technic of Injection.—When the needle passes through the costal pleura, and if no adhesions are present, the tube leading to the manometer is opened, and the fluid in the closed limb is sucked up. Usually it is elevated from 1 to 6 c. m. and oscillates. This oscillation proves that the needle is in the pleural cavity. When the negative pressure is greater than 3 cm., we let in gas. Beginners should not do it under 5 cm. negative pressure.

The Manometer.—We must get a negative pressure, to be in the pleural sac.

If there are marked adhesions, and the needle does not enter the pleural sac, the manometer stays at zero, and does not oscillate; or the oscillations are slight, 1 or 2 cm., and equal on both sides or slightly positive.

Injection of the gas.—Gas is allowed to flow in. About 300 cc. is the limit at the first injection. The patient is advised not to cough.

In Emergency.—Such as uncontrollable hemorrhage, when no apparatus is near, we can use a hypo needle, cover the butt end with cotton, then insert the needle. As the patient inspires lift the finger off the needle, and on expiration close the opening with the finger.

Reinflations.—This is done gradually, till finally the lung is collapsed and immobilized.

500 c. c. are injected at the second, and 1,000 c. c., at the 3rd sitting, if feasible. We are guided by the closing pressure at each inflation.

During the first fillings, the final pressure should not be over 0.5 to 3 cm. positive pressure.

Frequency of Refills.—After complete collapse, the frequency is diminished. Fever, cough and expectoration call for a refill. In complete collapse, breath sounds and rales are absent. A return means that a refill is needed. The fluoroscope is the best help.

Symptoms.—In fever cases, the fever drops. Night sweats stop. Appetite returns, and strength comes back. Cough is relieved. Cavities are emptied by compression, and expectoration may stop.

In severe hemoptysis, it relieves promptly, acting like a tampon.

Physical Signs.—Are hyperresonance. Displacement of the heart, especially in left sided pneumothorax.

Breath sounds and rales disappear. If large bronchi are open, we may hear amphoric breathing or metallic breath sounds.

Finally all sounds disappear.

Complications.—Are pleural shock, subcutaneous emphysema, and pleural effusion.

Gas Embolism.—This is produced if the manometer is not watched, and gas enters a blood vessel.

Pleural Effusions.—There is elevated temperature. The fever is hectic. Intrapleural pressure rises and oscillations decrease. Succussion sound and splash are present. Simple effusions have a good effect. Without fever, and if in small amount, it should be left alone, because it keeps the lung collapsed. If fever is high, it is removed and replaced with gas.

Indications.—In acute and progressive phthisis. In galloping consumption.

In recurring and severe hemorrhages. In unilateral cases. But if there is a small lesion on the other side, it can be used.

Contraindications.—Acute military tuberculosis, in which both lungs are generally affected. Diseases of the heart, blood vessels and kidneys.

Pleural Adhesions.—These generally prevent. About 5% of all cases of tuberculosis are suitable.

Duration of Treatment.—It must be kept up about 2 to 4 years; in some cases for life.

Results of Pneumothorax Treatment.—In proper cases, especially progressive cases, the result is often striking, the fever and active symptoms stop. In some cases, it cures.

GENERAL MANAGEMENT OF THE DIFFERENT FORMS OF PULMONARY TUBERCULOSIS.

Incipient Cases.—Rest from work, early to bed, and simple life are essential. A rest in the country for a few months is demanded.

Where there is acuteness and activity, shown by fever, night-sweats, cough, emaciation, etc., a complete rest in bed is demanded.

The country or suburbs, are better than the city.

Incipients do well. Many recover in a few months. The majority are arrested. They may relapse, unless a simple life is lived afterward. After recovery, the patient can return to his old occupation, if he slows up a little.

Advanced Cases.—The moderately advanced case, sometimes has a chance. The general symptoms are more prognostic, often, than the local physical signs. Many afebrile patients can do useful work.

Treatment of Convalescent and Arrested Cases.—Even advanced cases, which are quiescent, need a little work, to keep them happy.

Arrested cases are always in danger of relapse. They must be ever careful. During intercurrent diseases they should go to bed.

An arrested case can go back to his old occupation, except the unhealthy occupations. Light outdoor occupations are good. Country life is excellent.

Acute Phthisis.—This is not always fatal. It may become chronic.

Fibroid Phthisis.—The patient may be able to work many years and feel well.

TREATMENT OF COMPLICATIONS.

Pleurisy.—Fluid in the pleural sac is let alone, as it compresses the lung, and favors arrest of the disease. If symptoms of compression on other organs arise, it should be tapped.

Empyema.—Incision generally causes a badly smelling sinus for life. Therefore we generally tap repeatedly.

Spontaneous Pneumothorax.—Rarely this accident collapses the lung, and healing follows.

The severe pain and dyspnea require a hypo of morphine. But if no relief, removal of the air by tapping is needed.

Stimulants are given.

Hydropneumothorax.—This should be conservative. If dyspnoea arises, withdraw some fluid or air.

Pyopneumothorax.—Treatment does not cure. Operation is followed by a discharge of pus for life. It is wisest to tap often.

Laryngeal Tuberculosis.—This complication is best treated by the laryngologist. Many tend toward a cure, especially where the lung improves. The open air rest treatment is demanded.

Lactic acid, argyrol, and methylene blue are used.

Complete rest of the voice is exceedingly important. The patient writes his wants on paper.

For dysphagia, a few grains of orthoform or anesthesin are insufflated before meals. Iodoform, menthol, cocaine or morphine are similarly used.

Injections of alcohol into the superior laryngeal nerve often give relief to pain.

Otherwise anodynes are needed.

In Conclusion, I wish to make the strongest plea, for the diagnosis of pulmonary Tuberculosis in the *incipient* stage.

In the *incipient* stage, pulmonary Tuberculosis is *easily cured* or *arrested* in the vast majority of cases, by the open-air rest treatment, in perhaps 6 months. to a year, and this right in the *home* climate, *anywhere*. This means very *careful histories*, and very *careful examinations*, by the *general practitioners*.



THE SYMPTOMATOLOGY AND DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS.

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IT seems to me, Mr. President, particularly appropriate at this time to review the subject you have assigned me; first, because of its intrinsic importance and second, to note whether this great war just finished has contributed any aid to us in this next greatest war of ours against the tubercle bacillus. That phase of the subject, the diagnosis of early pulmonary tuberculosis, was indeed one of the greatest questions in the formation of our army. To speak in terms of money standard the mistake of accepting for service a man with this lung disease even though discovered before he sailed over seas, entailed an expense computed at \$5,000, and if not discovered until he was in Europe, it represented a direct loss of \$7,000. In our civilian life no one underestimates the suffering and loss, even apart from money, of incorrect or delayed diagnosis, and yet this error is still not infrequent. It was estimated that of all the patients in the German Sanitaria before the war 10 per cent were not tuberculous and in this country that percentage is not far from correct. In the Consumption Hospital near Boston, where the attending staff is composed mostly of men connected with a prominent Medical School, of 188 consecutive cases at autopsy twenty-two were found not tuberculous, though no patient is there admitted but consumptives, and nearly all of these twenty-two had positive reports of bacilli in their sputum. In my own experience at St. Anthony's and private work I find the same proportion of errors, errors in not diagnosticating existing trouble and (even more frequently now-a-days) error in calling conditions tuberculous which are not so. The thought which mitigates our regret in this respect is that no one can correctly diagnose this disease in all its conditions every time, and the most skilled make mistakes.

The entire subject of pulmonary tuberculosis is too long for one evening and I wish to acknowledge my accord with your President, besides placing many other restrictions he placed on me, in limiting this paper to the symptoms and diagnosis of *early disease*. There is still some dispute to the definition of early tuberculosis, incipient tuberculosis infiltration and consolidation, etc. I take the liberty of defining it myself for the purpose of this paper. Patients may die with a very small area of lung involvement. They may live for a long, long time with extensive areas of active disease, including caseation, consolidation and cavitation in both lungs. The duration of life does not depend solely on the extent of lung involvement nor on the anatomic change which may have occurred in that involved area, but to a greater degree on the general constitutional condition and reaction to the disease. So I will define for our purpose, early tuberculosis as that state of the patient in which there is an active disease existing in the lung but in whom the constitutional condition

has not become so impaired that the patient may not yet recover. I would call it early not from the pulmonary change so much, but from the constitutional change.

Thanks to the roentgen ray and our tuberculin reaction tests, we have learned that nearly every one has been infected with tuberculosis even to the extent of producing anatomical pulmonary changes. Seventy per cent of men in good health gave positive tuberculin reaction in certain army camps, and other writers have placed the percentage in adults generally as over ninety per cent. They are suffering in no way from tuberculosis nor will they until another infection takes place. The X-ray has shown that the first changes take place at the hilum of the lung, spreading out to the periphery along the bronchi and blood vessels through the lymphatics, depositing and forming tubercle most frequently at the upper lobes and then undergoing those changes we are more familiar with. Many adults in perfect health will show to the roentgenologist and physical examiner marked changes even at the apex—changes of induration and consolidation, the result of infection in earlier life. There is no *disease* present, however, and these people must be regarded as in perfect health. Autopsy statistics, too, have shown series in which were found healed gross lesions in percentages as high as 93%. (Remhardt at Berne). Certainly we have no reason to reject an individual from army service, from practically every vocation, compel him to sacrifice home and business, undergo the expense and distress of life in a distant climate or years in a sanatorium when his lung is not diseased at the time and the man shows only the signs of a long dead infection. So the crucial question in any patient is not, has this man ever been *infected* with tuberculosis, but is there now any *active* disease in his lungs?

It would be rank presumption on my part and waste of time on yours for me to review all those elementary matters in the symptoms and physical signs you know as well as I do. I will simply select certain ones for emphasis which will enable us to recognize more readily the *activity* of disease, attempt to give them relative importance and repeat in the differentiation of conditions most similar.

I like the consideration your president expressed to me for symptomatology in this disease for as I put it, the diagnosis *depends more on the symptoms than on the physical signs, roentgen rays or specific tests.*

The *previous history* of the patient is of value not in showing an hereditary taint or predisposition to disease, but rather whether there has been any prolonged intimate personal contact with some one already actively diseased. It matters not whether that one diseased was relative or not. It matters not at what period of life that contact took place, whether during the nursing period from a mother with bacilli-laden sputum to adult life. It only matters if the contact has been prolonged, been intimate and under conditions not perfectly hygienic. The frequent pleurises, the fistulas in ano, the scars of adenitis all *imply* an antecedent infection though not *necessarily* lung disease. Added to that history any condition which debilitates in general, any illness, any injury or vice and the record grows in significance. The patient may admit a loss of weight with cause uncertain—loss continuing, even reach ten per cent of his usual weight. It is also well to remember that the degree of robustness does not exclude pulmonary tuberculosis. I recall a woman of

five feet, seven inches in height, who at the time of examination weighed 225 pounds, but 10 pounds below her highest, yet was found tuberculous, with positive sputum and ultimately died from that disease. Scales in the doctor's office, faithfully used with the patient unclothed, and accurate results recorded from visit to visit are of very great assistance.

So too his complaint of *fatigue*—fatigue on less exertion than formerly and noticeable to himself or friends is associated with his loss of weight and his *cardiac* action.

The heart rate is always increased and the blood pressure is *low*. You may recall that insurance companies formerly would reject a persons whose pulse rate was above ninety, unless there was an explanation, because their first fear was tuberculosis. A pulse rate at rest between 80 and 90 reduces the likelihood of active disease 70 practically excludes it. The *body temperature* has no symptoms superior to it in significance. A continued normal temperature, i. e., under 99.4 by mouth points decidedly *against* the activity of the tuberculous process. Of course, no one places value on a temperature taken by mouth, at the office and only occasionally. Taken for many days when indicated, for several times in the 24 hours at regular intervals and by rectum or in men by urinating on the thermometer, make it of any use to us. The presence of recurring fever, no matter how slight, demand that tubercle be excluded or made the diagnosis.

The quality of the *blood* shows the toxic effect by its secondary anemia, amenorrhoea, and the disturbed digestive function.

The cough may be very slight but persisting, or may be very severe, with little or no *expectoration*, or with expectoration watery, mucous, mucopurulent or hemorrhagic. Any cough persisting one month demands that pulmonary tuberculosis be excluded. With practically no cough, with seemingly no previous symptoms out of a clear sky as it were, an individual may have a hemorrhage from the lungs, a hemorrhage startling and severe, which makes an impression never to be erased from memory. In ten per cent of all cases pulmonary tuberculosis first shows itself by a hemorrhage, while 45 per cent of the cases have hemorrhages at some time during the disease. True hemoptysis may occur in many pulmonary conditions as pneumonia, neoplasms, bronchiectasis, abnormal conditions of the blood itself, atheromatous changes in pulmonary arteries or from aortic aneurysm, nevertheless 90 per cent, i. e. nearly every case of real hemoptysis is caused by tuberculosis.

The presence of tubercle bacilli in the sputum is a positive proof of disease in the lung. A negative sputum is of no value for or against the diagnosis. The finding of bacilli in the sputum proves that a tubercle has ulcerated its way into a bronchiole therein discharging the bacilli. The diagnosis should be made (if possible), before bacilli are found. In the technique of sputum examination sources of mistake exist. The sputum may not be properly selected or obtainable, there may be malingering on the part of patients wishing to have them found or not found, as in our hospital, in the army for pensions or other purposes; the handling of materials and instruments in our laboratories may cause slips in technique, and the only wonder is that mistakes do not more frequently occur. With no error, the finding of bacilli, and in addition the presence of *elastic tissue* clinches diagnosis.

Our inability to be always right has made us look with much yearning towards those specific blood tests as in syphilis. Much and increasing work is being done with *complement fixation* and some reports are very encouraging and hold out promise, but not yet has the work been placed on a foundation that will give us practical results. *Tuberculin* has a fixed value as an agent in diagnosis but not in the direction originally supposed. It matters not whether it be used *on the skin* (Von Pirquet) *subcutaneously*, or in the eye (Calmette), a *positive reaction* indicates that the individual has *at some time* in life been infected, but does not denote when. It does not show the difference between old-quiescent, long-healed lesions, and those now active. It is the negative results which is of value in denoting the absence even of infection at any time, with unusual exceptions in mind of an individual shortly before death from tuberculosis, or in whom there has been a very recent acute *overwhelming* toxemia as in some military *forms*. The roentgen ray is of great help in the diagnosis of pulmonary affections and yet its limitations and requirements must be borne in mind. It will not answer all the questions we would ask. Only dense blood, fluid or connective tissue are distinguishable by obstructing the rays of light and in the reading and interpretation of the slightly varying densities only an expert—and an expert who has made that examination is best qualified. The difference between active acute process and the old healed lesion reveals itself by no more than the slightest fuzziness of outline of the shadow in the former, with the calcification or sharp outline in the latter. You will recall that an effort was made at the beginning of our war to decide by X-ray the pulmonary conditions of candidates for the army, but the results were so at variance with the clinical and physical examination that it was abandoned.

Some lesions of small size and conditions can not be detected. *Bushnell* quotes Cohn "that *caseation* 1 c. c. in size is not distinguishable." Dunham says "that no diagnosis of early tuberculosis should be made from the X-ray plate without ascertaining whether or not a heart lesion exists." Hamann of John Hopkins says the roentgen ray is of little value in early pulmonary tuberculosis—"similar in most respects to percussion and auscultation." It does reveal to us deep peribronchial tuberculosis we could not detect on physical examination and gives much assistance in the early recognition of complications as effusions of fluids of air.

The single negative plate I believe to be useless. The fluoroscopic and stereoscopic examinations are absolutely necessary in the diagnosis of intrapulmonary affections.

PHYSICAL SIGNS.

From one who has talked as much as I on the value and importance of physical examination, it may come as strange to minimize physical signs comparatively to symptomatology. Yet in this subject I do. Bear in mind I am not considering whether or not any infection has ever existed, or whether any abnormal change has ever taken place in the lung. I am submitting for your discussion whether any *disease* now exists—any activity going on in any existing anatomical lesion. I realize further that any lesion found is always more extensive than the physical signs would indi-

cate and that the part accessible to examination (e. g. periphery or apex) is not always the site or focus whence the trouble originally rises (e. g. the hilum). Further as the disease does not *always* begin in the lung by a very small area, gradually increasing in extent, but may begin with large areas of involvement in a lobe, one can not tell from the extent of the area of involvement the acuity or chronicity of the lesion. Yet most of the *physical signs* depend on the gross anatomical (mechanical) condition.

Inspection shows very frequently the limited movement and localized retraction of the chest and no more. I am still a firm believer in the value of information to be obtained from *percussion*. Concede the long time and practice required to be proficient in its art, the difficulties in the individual chest from thick parietes and enlarged mammary glands, the position of bed ridden patients, the "normal" difference between the apices, and yet in general it is of much assistance. We are apt to forget to percuss the lower border of the lungs to seek restricted movement, the apices in their comparative width or the interscapular areas. Yet there is nothing revealed by *percussion* or *palpation* that will let us form any opinion on the duration or activity of the lesion. *Auscultation* does however, more than any other method of physical examination, and this information is not gleaned from the respiratory sounds but from the rales. In respiratory sounds we may find the breathing diminish or suppressed, broncho vesicular, bronchial, or even broncho cavernous and the lesion old and quiescent. We have all dwelt long on the earliest change in the respiratory sound and the subject affords much debate. I believe that a marked roughening of the *inspiratory* sound *without* change in the expiratory, or a change in the expiration alone, this becoming *prolonged* and *high pitched*, are the earliest breathing sound changes. In circumferential areas, and in new areas of infection in the same or the other lung, do these changes from slight impairment, broncho-vesicular to bronchial breathing, help denote the increasing involvement of the disease.

Rales tell us more than do the breathing sounds. They are not always audible, they may escape detection, but when present they constitute the "auscultatory evidence of inflammatory reaction to the poison of tubercle, and further they are the best evidence that lesion is resisting its foes." Let us review for simplicity a few of the elemental points concerning rales. All rales are actually caused by moisture, and we call them dry or moist, depending as they sound to the ear, and denoting greater or less amount of moisture. If we admit that all rales, dry or moist, are either large, medium size or fine, depending on their site of origin, and call them so, we have agreed on terms of expression and nearly covered their complete description.

In the neighborhood of a deposit of tubercle we will hear on inspiration only, a shower, at least three, very fine moist rales. It may be, usually is, necessary to elicit them by requiring a patient to cough at the end of an ordinary inspiration and then breathe deeply. They are constant. If the rale be single—if it be large—if it be inconsistent it is not due to the bronchioles in the neighborhood of tubercle but to something else—some other, or more advanced condition. If the rales be viscid to the ear rather than watery and abundant, we believe the process to be the more acute. It is still very early in lung change when the tubercle begins to

undergo degeneration (caseous) we then find the small moist rales the subcrepitant with inspiration and expiration, and the crepitant only at the end of inspiration.

As I have stated we many times do not find the rales and hence our troubles are increased, but when these are found in an upper lobe, particularly in an area made significant by inspection and percussion, supported further by suspicious symptoms, our warrant for diagnosis of active pulmonary tuberculosis is perfect.

DIFFERENTIAL DIAGNOSIS.

At the ending of our influenza epidemic we have experienced much difficulty in distinguishing pulmonary tuberculosis of recent activity from a condition caused by influenza. A broncho pneumonic area situated in the upper lobe with physical signs of slight or no resolution, in a patient with continued fever for *several weeks*, with cough, muco-purulent expectoration and even *severe hemoptysis* is extremely puzzling. The X-ray will not tell us more than the physical signs. The condition in the lung may persist for months although the temperature rarely lasts that long. The history of its origin and course, the tendency to more rapid improvement in general health than in tuberculosis, the *gradual clearing in the physical signs* and the absence of tubercle bacilli in the sputum even after repeated examinations of properly selected sputum constitute the ground for diagnosis. In daily use the absence constantly and repeatedly of the bacilli in the sputum demand the presence of nearly every other element before one may be sure of the diagnosis of tuberculosis.

Apical collapse, with induration and all the physical signs of consolidation at that place, is frequently present where there is any impediment to proper and full respiration—usually in nasal or pharyngeal obstruction. But the symptomatology and history clear the atmosphere. There are no *signs* of activity—no abnormal temperature, no recent loss of weight—usually no cough, no expectoration, the *finding of the cause* in nose and throat and assuredly no bacilli in the sputum.

So too in that apical induration of cardiac disease—especially mitral stenosis of all the cardiac lesions the one most prone to have hemoptysis as one symptom. While patients with chronic endocarditis may develop pulmonary tuberculosis, it is infrequent and necessitates a careful study of the symptoms and history of the patient.

Bronchiectasis is one of the most difficult conditions to differentiate. Its chronicity, the character of the cough and expectoration even with slight hemoptysis, the emaciated body, occasional fever, accompanied by sweats and chilliness, make one hesitate, but bronchiectasis is usually in the lower lobes, very rarely in the upper, there are, of course, no tubercle bacilli in the sputum, no elastic tissue therein, and the history perhaps of many years duration with but slight recent constitutional degeneration.

Syphilis too, rare at any rate, whether the gumma or fibroid type, is also located in the lower lobe, has no bacilli nor elastic tissue in the sputum, and does give a positive Wassermann.

Hyperthyroidism with its tachycardia, its vaso motor paresis, its loss of weight has several times confused but attention to

the history, the other symptoms, noting the subnormal temperature, the slight cough, the expectoration, and a *proper* physical examination quickly decide the question.

Acute tuberculosis manifests itself as the lobar, the broncho-pneumonic and the military type. Its history denotes the recent origin, of onset of a definite fixed time. In their earlier stages none of these forms can be correctly and positively diagnosed, but any pneumonia with fever persisting past the usual time for that type, any pneumonia not *continuing* to resolve makes more imperative the demand for repeated diligent searches for the bacilli in the sputum. A recent writer has said there is no such thing as an "unresolved pneumonia." To the extent that it may make us more diligent in exact diagnosis we may accept the statement. In the military form of pulmonary tuberculosis a diagnosis can not be made on the physical examination alone. Again the history and symptoms are more valuable. The age, usually in early life, the previous personal and the family history, *severe septic* temperature, the *marked* increase in the rate of respiration, out of proportion to the anatomical findings in the lungs, the early cyanosis, the rapid decline of the patient constitutionally to a certainly fatal ending, appearance of the tuberculous foci elsewhere, as meninges, even though the bacilli laden sputum is rarely obtained and the X-ray examination is negative, warrants the diagnosis.

SUMMARY.

a. There is in nearly every case a period in which the anatomical changes are not sufficiently advanced to enable you to make a diagnosis on physical examination alone.

b. That there are many individuals who, at some time of life have been infected with tuberculosis, in whom the lesion has become quiescent or healed completely. These may give physical signs positive tuberculin, and roentgen ray pictures of a diseased lung but there is, in reality, no *disease* present.

c. To ascertain the presence of *disease*, that is activity of process in the lung, the symptomatology is of supreme importance.

d. There are many cases which you may rightly call pulmonary tuberculous without being able to place your finger on the exact spot in the chest where that disease is but yet.

e. The diagnosis can usually be made exactly, if the examination be *complete*, if it be thorough, if we do not seek nor trust to any one or two signs or symptoms alone, if it be often repeated and the patient kept under observation; and due regard paid to the physical signs, the history and the symptomatology.



THE TREATMENT OF EARLY TUBERCULOSIS.

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IN accepting Dr. Herbert's courteous invitation to present some remarks upon the treatment of tuberculosis, I feel that I have attempted a task of greater magnitude than can be compassed within the limits of such a paper, for it is too broad a field to more than hurriedly survey, and yet a brief review may be serviceable in helping to focus attention upon what has been already accomplished in the fight against tuberculosis.

By way of preface one should recall the wide variations in the intensity with which the disease manifests itself in different patients. It is of importance in dealing with the disease to recognize not only the extent of the lesion, but also to be able to form some estimate of the capacity of the individual and his fighting qualities, so to speak. It is a matter of common observation to find that one victim with comparatively slight physical signs will go rapidly down hill and die in a comparatively short time, while another with far more apparently extensive involvement will recover. The factors which determine the prognosis in every case are by no means easy to determine. There are, however, two points which will be of great aid in estimating the probable course of any case, a careful history and an estimation of the patient's psychology. A good history must include a careful review of conditions in childhood and adolescence, especially such points as frequent repeated colds, any periods of indefinite ill health, attacks of "malaria," association with tubercular surroundings, repeated or persistent cervical adenitis and other evidences of an imperfect physical resistance. In discussing their past history with a number of patients who have developed frank tuberculous lesions after forty, it is interesting to note that as boys they were unable to indulge in sports demanding endurance, as they were apt to get unduly short of breath or be troubled with faintness and prostration. One must, of course, exclude a possible cardiac cause for these latter symptoms. Taken together a series of slight, indefinite symptoms of this kind is suggestive of a tubercular infection that is more or less active during the period of growth and is held in check by the exuberant vitality of adolescence. Its bearing on the prognosis will be mentioned later.

The psychology of the patient is even more important by reason of its bearing on the cooperation that the patient may be expected to give in the treatment. While it is generally accepted that pulmonary tuberculosis is accompanied by a hopefulness that is peculiar to the disease, this is by no means always so, especially when the patient first is brought to realize the nature of his complaint; and in determining whether institutional or home treatment is the best, it is of prime importance that the patient's disposition should be taken into account. One drawback to the sanitarium treatment is the tendency which patients of an introspective nature develop to become morbid and self-centered, while with others a tendency to homesickness will

more than counteract the benefit of residence away from home. It is, therefore, of the utmost importance before advising any patient that they must go to a different climate to make certain that they will be happy and contented in their new surroundings. There is a disposition on the part of many physicians to give the immediate and often ill-considered advice, upon discovering a tuberculous lesion, that the sufferer must at once go to Colorado, or some other distant point. Not infrequently this means the breaking up of the home, the enduring of privation and the undertaking of an extremely radical step with inadequate means. Occasionally patients are led to believe that they can ply their trade or find occupation in the favorable climate of New Mexico or Arizona. I recall a young man afflicted with laryngeal tuberculosis, a tilesetter by occupation, who had been strongly advised to go to Silver City, New Mexico, where he confidently expected to ply his trade and support himself while undertaking the cure. His advisers had quite neglected to investigate and were considerably chagrined to learn that ornamental tiles were about as frequent in that part of New Mexico as are cactus plants in the streets of New York. One need not elaborate further this particular feature other than to emphasize again the necessity of approaching each individual in the way best suited to his temperament and mentality.

The treatment of tuberculosis practically resolves itself into one word—*rest*. But that word is like a wardrobe trunk by reason of the details which it contains. Rest means not only physical inactivity, but such mental treatment as will induce contentment and hopefulness and bring a conviction on the part of the patient that he is going to get well. The details of the treatment must be made to vary with the nature of the case and for convenience sake it would be well to group these details around the three general stages into which cases may be divided, the incipient, the moderate and the advanced. Hemorrhage and other complications will be considered separately.

There is still another stage which the careful practitioner will always bear in mind, the pretubercular. Given a patient without definite symptoms but in whom there is a persistently poor appetite, anemia without obvious cause, a tendency to repeated coughs and colds and weight a few pounds below the normal, especially if there be a history of tuberculosis in the family, and one should always bear in mind the possibility of a latent tuberculous condition, or at least a soil in which the tubercle bacillus will flourish. The long narrow chest and hyperacute costal angle are an usual part of the picture. The treatment of this stage is, of course, largely precautionary.

The Home Treatment of Tuberculosis: In certain instances it is entirely feasible to conduct at home the treatment of early cases. A patient whose involvement is comparatively slight, whose means are inadequate to meet the expenses of good sanitarium care, or whose temperament would be likely to interfere with the successful conduct of treatment away from home may be greatly benefited by a carefully conducted regimen. Take for example a young woman with one or two children whose husband is only just able to pay the ordinary expenses of living, for such a patient the choice must rest between such an institution as the municipal sanitarium at Otisville, or care at home. If one were convinced that she would be

homesick, distressed by separation from husband and children, fretted by the indiscriminate associations of a free sanitarium and depressed by its atmosphere, the liklihood is that the psychic influences would counteract the physical benefits that such an institution affords. But if she is amenable to treatment, reasonably docile and would be contented at home, it is justifiable to prescribe and supervise a course of home treatment. The essentials are an airy room, preferably on the sunny side of the house, rest in bed, cleanliness and intelligent attendance. In summer the problem is a simple one as the windows can be left open and the air freely admitted. In cold and inclement weather the supply of fresh air may be regulated by outside and inside awnings, of which the Walsh Window Tent is an excellent example. The general details of treatment do not vary from those already outlined—rest in bed while there is any temperature, abundance of wholesome, nourishing food and freedom from annoying details. The disadvantages of home treatment are, first of all a lack of discipline and orderly care which a well conducted sanitarium provides and the difficulty of foreseeing what whims a patient may take that might have an unfavorable influence upon the treatment; the need for frequent personal calls and advice, the intrusion of household cares and worry, and the well meant but often ill advised advice and interference of friends and neighbors. But with tact and patience this can be overcome if the patient is willing to cooperate. I recall one such case; that of a young woman with laryngeal and right apical involvements who was cared for by her mother in the upper floor of a boarding house. She slept in a Walsh Window Tent and spent her days in a rocking chair on the roof of an extension under an extemporized awning and gained twenty pounds in two months, but the persistent importunities of well meaning friends led her to change her physician three times in six months. The eventual outcome I never knew. On the other hand a young woman living in the lower part of a house in the central part of the city, the mother of two children, made a satisfactory recovery with no other care than that of her husband and mother. And one of the most uncompromising patients I have ever seen, not only because of the severity of her case, but equally because of the ignorance and dirt with which she was surrounded, made an unexpected recovery by utilizing a crude shack in a city back yard.

The Sanitarium Treatment of Tuberculosis: In favor of the sanitarium treatment of tuberculosis are these recognized facts. The patient who has no knowledge of how to care for himself, who may be careless in his habits, heedless in his eating and prodigal of his energies, is placed amid surroundings where minute attention to the details of treatment is in the atmosphere that he breathes, the associations that he keeps and the sights that he sees. He learns that resting does not mean sitting down in a chair for a few minutes. He is taught that system in his eating, in his sleeping and in the observation of his symptoms spells success, while carelessness leads to failure. He learns that patience is essential and that fretfulness and haste retard the cure. He learns, if he is at all teachable, not to spit carelessly and his natural desire to indulge in active exercise when he feels well is controlled for his own good. In other words, a young man who has been accustomed to follow his own inclinations, to eat as he pleases, to keep late hours, to smoke

and to drink at his own sweet will, to be heedless in regard to the ventilation of his sleeping quarters and to do his day's work under full steam, is taught by his surroundings, by precept and by daily medical supervision to lead an orderly, careful and well considered life, a thing that is difficult if not impossible to accomplish in young men outside of the restraining influence of a sanitarium.

To offset these advantages there is a morbid habit of introspection, of selfconsciousness and selfindulgence that is only too prone to occur in any human being who is constantly surrounded by signposts that remind him to take his temperature three times a day, to count his pulse when he thinks of it, to take a nap in the afternoon, to avoid excitement and to study himself in the light of these symptoms. This type of hospitalism tends to produce an intense selfishness in addition to the morbid fear of outstepping the bounds of absolute safety, and is a result that is very likely to follow six or eight months' residence in almost any sanitarium. Could this tendency to hospitalism be avoided, there is no question that institutional treatment would be the ideal method of dealing with all forms of tubercular diseases, because in addition to the positive advantages already enumerated, it does away with the easy indulgence of home treatment where the constant intervention of friends and the solicitude and indulgence of relatives is so apt to break through the system that the physician has outlined.

On the advantages of climate: There is still a great division of opinion on the question of the climatic treatment of tuberculosis, one extreme class of observers declaring that residence in a high, dry atmosphere is essential; another being equally positive that climate is unessential; while a very considerable intermediate class believe that while it may be desirable to find permanent residence in moderate altitudes in the interior, it is still possible to obtain excellent results at the seaside, or even in the city. Physiological observation of human beings in high altitudes reported by Yandell Henderson and others, shows considerable increase in leucocytes and an increased hemoglobin content and this is taken as indicating a heightened capacity on the part of the patient to withstand bacterial invasion. Indeed a recent editorial writer has promulgated the fanciful notion that airplane flights should be of curative value for tuberculous patients. There are those who point out the splendid results in the treatment of tubercular joints in children obtained by the treatment by direct sunlight in the high altitudes of the Alps, but equally good results have been reported from the seashore of Northern France and from sanitariums on Lake Erie and at Coney Island, although the American institutions are still too young to supply extensive statistics. In the same way the records of the Riverside Hospital and Seaview Hospital in New York, of the sanitarium at Medford, Long Island and of other institutions close to the seashore may be taken as indicating the fact that climate per se is only one factor in determining a cure. It will be generally agreed that the air of cities, polluted as it is with factory smoke and vapors and laden with the pulverized excreta of men and animals and filled with soot and other forms of dirt, must be a less desirable air to breathe than the cleaner air of sparsely settled regions. Nevertheless, arrested cases are constantly being reported among city dwellers and fatalities occurring in such favored spots as Saranac and in the ideal climate of New Mexico and Arizona.

It has always seemed to the writer that the question of climate resolves itself into two parts, one the stimulation which comes from life in the open and the other the mental exhalation which every one appreciates when he finds himself amid the beauties of nature, the calm and quiet of solitude and the uplift which the psalmist David felt when he exclaimed, "I will lift up mine eyes to the hills from whence cometh my help." It is, therefore, desirable when circumstances permit to obtain for any patient, whose cure depends as much upon rest and time as upon therapeutic measures, such wholesome out-of-door surroundings as his means will afford, remembering that those sections where there is the least rainfall and the fewest variations in temperature afford the greatest opportunity for life out of doors, which stimulates body and mind alike and is a tremendous adjuvant to any form of treatment.

If one will regard pulmonary tuberculosis in the light of an injury to the lung comparable to any surgical lesion of that structure, the obvious and logical essential in any treatment is rest. While it is impossible, except by direct compression, to produce complete rest because of the need for continued breathing, a great deal can be gained by posture, quiet and freedom from mental disturbances. If the patient is made to lie down, not only is the number of respirations per minute reduced, but the excursion of the thorax is somewhat limited and the type of breathing tends more to the abdominal than to the thoracic. The heart also slows down from ten to twenty beats per minute and two results accrue; less excursion of the lung tissue and lessened circulation. If, in addition to these mechanical aids, the patient's mind is kept peaceful, emotional changes with resultant increase in the circulatory and respiratory rate are avoided. From the very nature of tubercular pathology, the two requisites for healing are quiet and time in order to favor the undisturbed formation of the fibrous and calcified capsule about the tubercle. It is a safe rule that absolute rest should be enforced until there is no evening rise in temperature. Then moderate exercise gradually increased should be instituted and suspended again on the first evidence of recurrent fever.

Mixed Infections. The temperature curve in many cases is doubtless influenced by a mixed infection and in many of those cases where a persistent high temperature appears with comparatively slight physical signs, one may reasonably suspect that the pyogenic organisms, bacillus of Friedlander, the pneumococcus or other germs are in part responsible. There are a number of phthisiographers who incline to the belief of Von Ruch that the treatment of such cases should include the use of autogenous vaccines. My personal experience is too limited to permit an expression of opinion in regard to this method, but it seems reasonably logical to expect that the attack by vaccines upon the more common germs of suppuration might have definite value by helping to eliminate their effect and permitting the system to center its efforts upon the control of the tubercle bacillus, a view that is emphasized by Bonime. It might be worth a somewhat more extended trial.

Treatment by tuberculin: Since Koch's discovery of this substance, there has been a great division of opinion regarding its therapeutic value. If one follows the general teaching of the Trudeau school he will regard it as having only a psychological value. A recent inquiry on this subject from one of the staff at Trudeau

brought out the statement that they practically never used it except where the patient demanded it. On the other hand, a number of excellent clinicians use tuberculin under the impression that it tends to stimulate an increased resistance on the part of the patient when given in doses that are so small as to produce no severe reaction. The method employed begins with a fraction of a milligram which is gradually increased at intervals of from four to seven days, always keeping the dose within the patient's ability to tolerate it. A curious diversity exists in regard to the particular preparation chosen. There are four preparations in ordinary use, the old Tuberculin of Koch. Tuberculin Rest, B. F. and B. E. (Baccillen Emulsion). Possibly the T. R. preparation is the more generally used. It is my own impression in regard to tuberculin that its main value is exercised in the treatment of surgical forms of tuberculosis and in those patients who are impressed with its use as a detail of general treatment.

While rest and climatic changes have been mentioned, diet is a third essential. It is interesting to note how various schools of treatment have dealt with the question of the nourishment of the patient. At one time Cod Liver Oil was the all important factor. Later the French school insisted upon the value of quantities of raw or rare beef. Then came the period of unlimited milk and eggs and at various times particular preparations of fat, the expressed juice of vegetables, fermented milk and more recently an excess of sugar in the diet, have each had their advocates. It has been my privilege to sample the food at several of the well known sanatoria, including Trudeau and Loomis and I am free to confess that were I an invalid with a capricious appetite, the temptation to eat for the sake of eating would not assail me, provided that the samples I tasted fairly represent the average dietary. And yet a very large number of incipient patients owe their recovery to the treatment at these institutions. It may be as one patient expressed to me, the stimulation of the outdoor life gave him an appetite that would welcome leather and horseshoe nails if nothing better were at hand. However, the necessity for providing a palatable and nutritious diet is so evident, that no particular comment is necessary. I am convinced, however, that there is no inherent virtue in milk or eggs or cream, but that the question is merely one of providing a nutritious and palatable diet containing considerably more heat units than the patient actually requires in order that the body may build up a reserve on which to draw as need presents. The diet should be varied, suited to the patient's appetite and never offered in such amount as to disgust the palate by superabundance. It is far better to provide five moderate meals than three excessive ones. The gastrointestinal tract must be watched and precaution observed to prevent digestive disturbances. In addition to rest, abundant wholesome food and unlimited fresh air, there must be some form of diversion to keep the patient contented, and absolute cleanliness for skin and excreta alike. Where the expense of paper sputum cups, which are the most desirable receptacles for sputum, is an item, toilet paper or soft absorbent paper of any kind may be substituted.

The care of moderately advanced cases does not materially differ from that of the incipient ones except that it is of necessity a longer and less satisfactory affair. While most sanatoria expect

an average residence of about nine months for incipient cases, the more advanced ones require a longer time, and a greater diversity of treatment. One may expect to find here and in the advanced types a complicating bronchitis or laryngitis, occasional gastric disturbances, a greater tendency to hemorrhage, etc. Cough, hemoptysis, and gastric complications require special treatment. If the cough is due to tubercular involvement of the larynx, it is often necessary to call upon the trained laryngologist for local treatment, although sprays and inhalations containing benzoin, eucalyptus and menthol are often helpful. Not infrequently persistent cough is due to pleurisy, a complication which adds a distressing pain to the annoying cough. This particular type of cough is apt to be dry, nonproductive and irritating and often is refractory to all forms of treatment; a warm even temperature, strapping of the chest and the use of sedatives is indicated. The writer has found a cough mixture containing spirits of chloroform, terpin hydrate and heroin in doses not to exceed 1/40 grain, combined with syrup of tolu or some other bland vehicle, servicable in this type of irritative cough. Dilute hydrocyanic acid which is often advised, is a drug which should be used with extreme caution as many patients exhibit extreme susceptibility to even minute doses. Faintness and undue prostration are indicative of poisoning by this drug. Occasionally one of the emulsions of fat seems to be helpful in relieving the cough. Hemoptysis, a peculiarly terrifying complication for the patient and his friends is best treated with morphine hypodermically. The treatment of internal hemorrhage from both lungs and alimentary tract has been very generally discussed and a variety of remedies suggested. Horse serum hypodermically, coagulose, thromboplastin, have all been tried and are occasionally helpful; quite as often they do not seem to be effective. The same may be said of calcium chloride and calcium lactate, although both drugs have a wide vogue. Styp-ticin has been tried. Ebstein has recommended the addition of a .02 per cent calcium chloride to 10 per cent sodium chloride solution, of which 5cc is injected hypodermically at intervals of 10 to 15 minutes, for several doses. I have had no personal experience with the method. The main dependence must be placed on rest, sufficient morphine to slow down both pulse and respiration, the use of small quantities of ice to satisfy the thirst and the use of any or all the adjuvants named to fortify the moral atmosphere. The excessive sweating which is so often a distressing feature of wellmarked cases may be occasionally helped by belladonna or atropine, but in the writer's experience attention to the patient's hygiene and to improving the nourishment seem to be fully as helpful.

In conclusion an apology must be offered for the cursory manner in which an all important subject has been treated. It has been the author's purpose rather to emphasize the cardinal points of treatment than to enforce details. He has appreciated the opportunity to reiterate facts which are vitally important and which until quite recent years have been disregarded because their importance has been little understood. Possibly no branch of medical science has been taken so much for granted as the treatment of tuberculosis and because of this attitude on the part of the general profession progress has been limited and yet no class of cases repay so fully the care and minute attention bestowed upon them.

ABSTRACT OF NOTES ON UROLOGICAL DIAGNOSIS.

With Special Reference to Pyelography.*

Nathaniel P. Rathbun, M. D.

Brooklyn, New York.

UROLOGY has established itself as a surgical specialty very largely because of precision in methods of diagnosis. The diagnosis in urological cases is sometimes very simple and at other times exceedingly difficult.

Patients may present themselves with a variety of subjective symptoms; whatever these may be, one objective symptom is almost invariably present: the presence of some foreign element such as blood or pus in the urine.

We then have three definite problems before us. First, the source: is it the bladder, ureters, kidneys? Second, the nature of the trouble, tuberculosis, stone or some other pathological lesion? Third, if one kidney is involved, it becomes of vital importance to estimate the functional capacity of each kidney.

In many cases, as for example the various lesions of the bladder such as stone, tumor, etc. the diagnosis is readily and quickly made by a simple observation cystoscopy. In the more complicated cases the problem is infinitely more difficult and not infrequently the patient is subjected to innumerable cystoscopic, X-ray and various other examinations before a conclusion is reached. This results in a great deal of inconvenience to the patient to say nothing of expense and loss of time.

During the past year we have developed a routine at the Brooklyn Hospital, hoping to avoid this difficulty. In other words we aim at making a diagnosis at one sitting and while we are not always successful it seems like a step in the right direction. Our procedure is as follows: The patient is admitted the night before and given a large dose of castor oil. He urinates upon awakening and is requested not to urinate again until he appears in the cystoscopic room. In the meantime he is given a light breakfast and urged to drink large volumes of water. At the examination a cystoscope with the observation telescope in place is passed into the bladder. The bladder urine is collected through the instrument in a sterile container and sent to the laboratory for a complete examination, including culture and animal inoculation. The bladder is then irrigated and distended with a solution of oxycyanide of mercury 1-5000. The bladder is inspected and pathological conditions noted. The observation telescope is then withdrawn and a double catheterizing telescope with X-ray catheters introduced; both ureters are catheterized and specimens of urine from each kidney collected in sterile containers and

* A part of the proceedings of the Society of Internal Medicine, January 31st, 1919.

sent to the laboratory for complete examination. Phenol-sulphone-phthaleine .001 is then injected intra-muscularly and the time of first appearance noted for each kidney. The patient with the catheters still in situ is then wheeled into the X-ray room immediately adjoining and a complete set of pictures taken. If one kidney is under suspicion, a 25% sol. of Sod. Bromide is allowed to run by gravity into the pelvis of the suspected side until the patient complains of discomfort, in this way estimating the capacity of the kidney pelvis; a pyelogram is then made. We now inject 2 c. c. of a 25% sol. argyrol, freshly prepared, into the pelvis of the other kidney; the catheters are removed and the examination is completed. The patient if he wishes, may return to his home that afternoon, or in the following morning and await the result of cultures, etc.

While this method does not always furnish us a complete diagnosis and while many times we are obliged to check up certain points and further elucidate others; still the examination is fairly comprehensive, it furnishes us with a great deal of information and not infrequently fully solves our diagnostic problems.

Among the more recent contributions to our diagnostic armamentarium is pyelography. This occupies an important role in three ways: (1) It enables us to check up a diagnosis which is reasonably well established by other means. (2) It may be the deciding factor in obscure cases where other findings are more or less contradictory and confusing. (3) In some cases, such as kinks in the ureters, deformities of the kidney pelvis or incipient tumors, it may be the only possible way of making a diagnosis.

(A number of lantern slides of pyelograms illustrating all these points were exhibited.)

The Associated Physicians of Long Island

JUNE MEETING

will be held at

SAYVILLE, N. Y.

JUNE 28, 1919.



EDITORIAL



THE PROFESSIONAL GUILD.

ATTENTION is called to the proposed constitution of a Professional Guild of Kings County, which, together with an explanatory letter from Dr. John J. A. O'Reilly, appears in the following pages.

The constitution and object of the guild are set forth so fully that editorial comment seems unnecessary except to emphasize the importance of this step, which is essentially a form of trade unionism and, therefore, is both revolutionary and reactionary inasmuch as it reverts to the Middle Ages in its effort to bind together these practitioners who are the lineal descendants of the doctors, barber surgeons and apothecaries of the Fifteenth Century, while it looks forward to employing those cooperative methods which lend weight to individual opinion. It should be said that the proposed plan is in no sense an effort to block real progress or to impede useful welfare work. The three allied professions, however, realize that as practitioners they are better qualified to speak upon the practical working of proposed welfare legislation than are those theorists who, from the safe shelter of a salaried position, seek to create tableaux vivants out of materials that will not stand exposure to sunshine and rain, as must any constructive proposal that seeks to bring about real and enduring benefit. The allied professions make their living under both conditions and they know the materials with which they work. Efforts are now being put forth that promise to create similar associations throughout the state so that by the time the legislature convenes there will be a strong and effective organization to direct the campaign of public health legislation. There are a great many physicians, dentists and druggists who are unaffiliated with any of the local societies to whom the guild and its objects must be introduced individually. Judging from the reception which the proposition has thus far received, there can be little doubt of the unanimous approval of all interested. It is the duty of every thoughtful man who reads this proposition to see that it is placed before as many others as he may be able to reach in order that the organization and its objects may be universally known.

H. G. W.

To the Physicians, Dentists and Pharmacists of Kings County:

At a Mass Meeting of the Doctors, Dentists and Druggists of the County of Kings, held February 24, 1919, to consider the provisions of the so-called Davenport-Donahue Health Insurance Bills, a Committee was appointed to appear in Albany and register the sentiment of the meeting in opposition to the passage of the Bills and to submit certain amendments which would serve to maintain the dignity and economic safety of the professions and

the right of free personal choice and physical safety of the employees deriving insurance under any insurance measure.

The history of that public hearing is that these amendments were disregarded and a definite public promise was made by the Legislative sponsor of the Bills to prevent issuance from Committee until and unless the measure was made to provide for the maintenance of the existing relations between the medical profession in its service to the individual and the public, and the public in its confidence and respect for the medical profession. However sincere that promise was, in the making, it was not kept because the Bill was transferred from one Committee to another and reported out and passed by the Senate, but, as it failed to appear before the Assembly for a vote, it did not become the law. . . . However . . . the Report of the Governor's Reconstruction Committee and the activity of the "uplift" influences behind this class of legislation as well as the Governor's own attitude to the subject, makes certain the introduction of a similar measure in the next session of the Legislature, unless organized thinking professional men and a thoroughly instructed public express *their* will in terms the politician can understand and the professional philanthropist cannot overcome.

This health insurance measure is only one of many pernicious pieces of legislation presented during the past several years: some of them are now the law and all of them have the ostensible purpose of "uplifting" the so-called "poorer classes" but the *real effect* of pauperizing and victimizing the poor, encouraging parasitism, and imposing a tremendous burden of taxation on the public, and, incidentally, providing a choice lot of patronage for the politician. That they are uneconomic and unsafe may be understood from the fact that a member of the State Industrial Commission openly avowed the fact that the operation of the Workmen's Compensation Law has made the State Industrial Commission the "creature" of the Insurance Companies, and the Governor's personal Investigator stated in his report that the pernicious practice of permitting "private settlements" of claims for injury had worked the most appalling injustice to the very people the Compensation Law was ostensibly designed to benefit. We, who are more concerned with the results to health and strength than with the economic efficiency of "private settlements" as compared with commission awards, cannot close our eyes to the fact that the medical and surgical care of the injured workman has been made a Business rather than the Humanitarian Service it has always been.

The unfortunate narcotic addict, who is not always a creature of the underworld, but may be the victim of quack or other nostrums for the treatment of his real or fancied diseases, has become, by the operation of the Narcotic Law, a "thing" which the family doctor treats at the peril of an assault upon his reputation and his honor by an over-zealous officer of the Department of Corrections or actual seduction and arrest by a crafty Police Officer from the Drug Squad seeking promotion by way of the "quantity-arrest" policy of the Police Department. The public clinics are, by the practical operation of the law, convenient nets where the police and parole officers gather in unfortunate addicts until they grow cautious, like the birds, and seek else-

where for the drugs they crave, leaving the "professional up-lifter" to boast that this reduced attendance at the clinics shows the salutary and correctional operation of the law.

Child murder and licentious propaganda almost attained the dignity of a legislative institution through the introduction of euphemistically labelled "Contraceptive Legislation."

In these and a host of other legislative excrescences the medical and allied professions have a distinct personal right of interest and an imperative public duty of antagonism; heretofore those professions have been negligible quantities in the calculations of legislators and insignificant atoms beneath the notice of politicians; the Committee recognizes this fact and the necessity for molecular organization; so will you, if you will divorce yourselves from the compelling character of your work and give a few minutes' attention to the secular things about you. The dignity of our calling imposes upon us the duty to guard the public health and safety by a united warning, as we are daily guarding the health and safety of the individual by our personal advice and interest; therefore the Committee recommends the unification of the three professions of Medicine, Dentistry and Pharmacy into a *Guild*. A tentative plan of that Guild is submitted to you herewith as a prospectus or preliminary constitutional draft, the details of which must be worked out by a properly constituted body with power. If the general plan meets your approval we ask that your organization make a "minute" to that effect and choose one delegate for every fifty members in your organization (or fraction thereof) and invest them with power to meet their fellows from other organizations and crystallize what we have outlined. Then send a copy of the "minute" with the names and addresses of the Delegates to the undersigned Chairman, and later, when the completed Constitution is submitted for your ratification, you can either continue the Delegates or elect others in accordance with the one and two-year-term provisions of the Constitution and the *Guild* will have become an accomplished fact which must be reckoned with; for example: when an individual, representing industrial organizations, threatens a Legislature with the disfavor of 750,000 votes, or a professionally philanthropic organization threatens an individual legislator with political annihilation unless such pernicious, humiliating, degrading, confiscatory, uneconomic, wasteful and un-American legislation as the Davenport-Donahue Health Insurance Bills and the like are supported and made the law.

Let the Legislature, if it will, make some provision for an allowance to the sick poor or the moderately paid workman or employee which will help him pay for medical care, nursing, medicines and supplies, or help him to keep in repair the teeth of himself and family; or help him to repair or replace worn-out crutches or trusses, but leave the payment of the obligation to the citizen, where it belongs. Let the State provide such scientific aids as diagnostic and X-ray laboratories so that the family physician of the poor or moderately paid may give his patient the benefit of such advance in science without surrendering the patient (whom he loves and who loves him) to such institution to be card-indexed as a "case" and treated by routine without thought for the personal equation, which cannot, in the nature of

such circumstances, exist. Theoretically, they say, a man is worth \$2.50 per day from his neck down. . . . Theoretically, too, you can card-index and communize humanity so that Dr. A. or B. (strangers) can render to the family of Mr. X. or Y. the same quality of service their beloved Dr. C. has always rendered; practically they cannot. Theoretically, you may forbid Dr. C. serving the family of Mr. X., because he already has had assigned to him 500 families, and penalize the employee, X., if he dare consult his own old physician rather than the "unit," Dr. A., which the State graciously permits him to call upon; but practically you are disorganizing Society and enthroning discontent.

Let us get into a position to be able to say to a Legislature, in the language of VOTES which they understand:

"Help the poor all you can and we will help you to help them, but do not permit the passage of laws which puts a premium on parasitism. . . . We have enough parasites now."

Committee on Plan and Propaganda,

HENRY G. WEBSTER, M. D., *Chairman*,
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1290 Carroll St., Brooklyn, N. Y.

Brooklyn, N. Y., May 5, 1919.

PROFESSIONAL GUILD OF KINGS COUNTY

Constitution

THIS organization shall be known as the Professional Guild of Kings County. It shall be duly incorporated under the Laws of the State of New York to conduct business and to hold property.

OBJECT

To bring together the professions of Medicine and Surgery, Dentistry and Pharmacy for the scientific and material advancement of the Professions and to insure better conditions for the Public. This shall be understood to include: (1) the Unification of the Professions; (2) the formulation of Legislation, especially along the lines of Public Health; (3) the education of the Public in matters of Public Health Legislation, and co-operation with other Civic Bodies along lines of Public Improvement.

MEMBERSHIP

All Registered Physicians, Dentists and Pharmacists shall be eligible for membership, which shall be made up as follows: In order to preserve the existing Professional Organizations of the County, membership in the Guild shall be made up of two (2)

parts: Organized and Unorganized. Organized Membership shall include, as units, Professional Societies already existent. Unorganized Membership shall comprise those individuals who are not affiliated with any Society.

DUTIES OF MEMBERS

Acceptance of membership carries the obligation to abide by the rules of conduct promulgated by the Guild and the payment of dues decided upon by the Guild.

COMPOSITION OF THE GUILD

The Guild shall be composed of the two classes of members already described. For purposes of Administration there shall be a House of Delegates, elected by the Guild; a Board of Directors elected by the House of Delegates; the House of Delegates shall elect a President who shall be ex-officio a member of the Board of Directors; a Vice-President who shall serve on the Board of Directors in the absence of the President; and a Secretary; it shall also elect a "Board of Trustees for Funds." The Board of Directors shall elect a chairman from its own one-year-service members and shall designate and employ an Executive Secretary.

HOUSE OF DELEGATES

This shall consist of members elected annually by the Guild (at first for one- and two-year terms—then for two-year terms). Each constituent Society shall be entitled to one delegate for each fifty (50) members or fraction thereof. Unorganized members are entitled to delegates in the same proportion who shall be nominated upon petition of five or more members and elected at a Convention called for that purpose. No one is entitled to vote or hold office whose dues remain unpaid after September 1 of any year. The House of Delegates shall meet in January of each year for the purpose of electing Directors, hearing reports for the previous year and such other business as may properly be brought before it. It shall at this meeting fix the Annual Dues upon recommendation of the Board of Directors and provide funds for the conduct of business of the Guild. It shall be authorized to receive bequests and contributions for the work of the Guild. It shall meet once every three months and may be assembled upon call of the President or of the Board of Directors, or upon the petition of ten Delegates for special meetings.

BOARD OF DIRECTORS

The Board of Directors shall consist of twenty members in addition to the President of the Guild and the Executive Secretary (with voice but not vote). They shall be elected by the House of Delegates at the annual meeting in January and shall serve for two years, except that the first Board shall consist of two classes, one elected for two years and one for one year. They shall be apportioned among the three professions pro rata, based on State Registrants as of December 31st. At each annual meeting the retiring

Board shall certify to the House of Delegates the number of Directors to which each Profession is entitled. The Board of Directors shall control the affairs of the Guild, including all financial matters. They shall appoint an Executive Secretary and procure funds for salary as well as for the proper discharge of the various obligations of the Guild, submitting an annual budget to the Board of Delegates. They shall prepare By-Laws for their own government.

PRESIDENT

A President shall be elected annually by the House of Delegates. The first President, as well as the other elective officers, shall be chosen from the whole membership of the Guild; thereafter he shall be chosen from among those Delegates who have served one year at least, and this rule shall apply to the other elective officers. He shall preside at all meetings of the Guild, be ex-officio a member of the Board of Directors and preside at the meetings of the House of Delegates. He shall perform the usual duties of President and shall be eligible for re-election.

VICE-PRESIDENT

The House of Delegates shall elect, annually, and under the conditions governing the election of the President, a Vice-President who shall serve as a member of the Board of Directors in the absence of the President. In the absence of the President he shall discharge his duties.

EXECUTIVE TREASURER

In like manner, and subject to the same conditions, the Board of Directors shall elect, annually, an Executive Treasurer, from the one-year-service Directors. He shall have control of the funds of the Guild except monies in the custody of the Board of Trustees of Funds, and shall pay all financial obligations of the Guild after due authorization by the Board of Directors. He shall collect dues through the Executive Secretary and discharge such other duties as are appropriate to the office. He shall be bonded at the expense of the Guild in such sum as the Board of Directors shall determine.

EXECUTIVE SECRETARY

The Board of Directors shall appoint and employ an Executive Secretary who shall be a properly qualified man of affairs, duly acquainted with practical legislative methods, whose entire time shall be devoted to the business of the Guild. His salary shall be determined, annually, by the Board of Directors. He shall establish an office which shall be the headquarters of the Guild, employ such clerical help, subject to confirmation by the Board of Directors, as the business of the Guild shall require; have a voice but no vote in the Board of Directors and, in the intervals of its meetings, be the responsible representative of the Board of Directors. He shall be charged with the details of management; he shall collect dues from and through member-organizations and from unattached members, and shall assist the Treasurer as required. He shall be bonded in

the same manner as the Executive Treasurer. His duties shall include (A) Propaganda, (B) Legislation, (C) Membership. Under Propaganda shall be included the presentation of the advantages of the Guild to the Public through the medium of the Press and such other agencies as may be deemed wise; placing the opinions of the Guild on matters of Public Health before the Legislature, its Committees and individual members; and active co-operation with other civic organizations.

Legislation shall be understood to include the presentation and interpretation of all bills introduced into the State and National Legislative bodies to the members of the Guild and the construction of legislation on behalf of the Guild, and organize opposition to pernicious legislation through the Guild, the Press and otherwise.

Under membership shall be included not only the acquisition of new members but the supplying of bulletins on matters of importance to all members; the consideration of the acts of individual members; and the construction of a suborganization known as a Legislative Bureau, bi-partisan in composition and non-partisan in function, made up by and from members in each Assembly District for the purpose of promoting harmonious individual relationship with the Legislators from those districts.

REPORTS

Each of the Elective Officers and the Board of Directors shall submit a report of the work of their respective officers for the year, at the annual meeting of the Board of Delegates in January.

COMMITTEES

The Board of Directors and the House of Delegates are authorized to appoint such Committees from among their members and to delegate to them such powers as may from time to time be advisable.

AMENDMENTS

This Constitution may be altered or amended by the vote of two-thirds of those present and voting at a regular meeting of the House of Delegates, provided that the proposed amendment has been submitted in writing at a regular meeting of the Board of Delegates at least three months previous, and a copy has been mailed to each member of the Guild.

(Signed) Committee on Propaganda,

JOHN J. A. O'REILLY, M. D.,

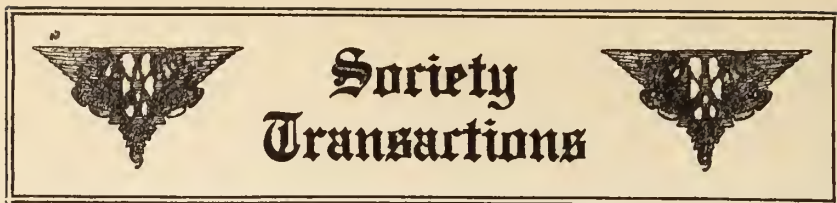
HERBERT D. SCHENCK, M. D.,

ABRAHAM KOPLOWITZ, M. D.,

E. A. HOLBROOK, D. D. S.,

HENRY G. WEBSTER, M. D.,

Chairman, 364 Washington Ave.



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Regular meeting of the Brooklyn Surgical Society held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, March 6, 1919, at 8.30 p. m.

Continued

Paper: Pre- and Post-Operative Treatment of Gastric and Duodenal Ulcer

Anthony A. Rutz, M.D.

It is not the purpose of this brief paper to enter into a discussion of the general medical treatment of gastric and duodenal ulcer, but merely to consider such measures as should be adopted prior to and after operation.

While surgery seems the rational treatment for chronic ulcer, still it is well recognized that the end-results of such treatment are frequently unsatisfactory. The persistence of symptoms after operation is partly due to the fact that such ulcers rarely exist alone, but are more frequently associated with other lesions; and partly to the fact that not sufficient consideration is given to the patient prior to and after operation. Chronic appendicitis, cholecystitis and gastric or duodenal ulcer frequently coexist. Less frequently there is an associated chronic pancreatitis. This coexistence is not altogether due, as Rosenow has taught, to the fact that the organism most commonly found in these cases has a common affinity for the mucous membrane of these organs. Intestinal stasis is, I believe, especially in women, an important factor in their production. The increased intraintestinal pressure, together with the marked changes in the intestinal mucous membrane and contents, resulting from the stasis, interferes with the proper drainage of these organs and thereby produced changes in their mucous membrane and blood supply. This favors bacterial invasion, either direct from the intestinal lumen, or from distant foci of infection. That intestinal stasis is an important factor in their production is at least suggested by the fact that in the majority of well-marked cases of ptosis these three lesions sooner or later develop. Furthermore, not infrequently in cases of acute or subacute intestinal obstruction, as in carcinoma of the colon, marked pathological changes are found in the appendix and gall-bladder.

Besides these lesions, primary foci of infection, such as diseased teeth, tonsils, or sinuses, should be looked for and removed or treated prior to operation. Their relation to the production of ulcer cannot be questioned. The development of an acute ulcer or the exacerbation of a chronic ulcer after an attack of tonsilitis, is a common occurrence. While the removal of primary foci and the use of appropriate vaccines have in practice produced little or no change in the progress of these lesions, yet such procedures will, at least to some extent, prevent their recurrence.

While the recognition and treatment of these lesions will not always prevent the persistence of symptoms after operation, yet such recognition will at least prevent disappointment on the part of the patient and physician.

Another factor to be considered prior to operation, is the general condition of the patient. It is unjust to submit to operation patients who present a poor surgical risk without proper preparatory treatment, unless the case is urgent.

Experience has shown that the anemic, emaciated and toxic patient makes a poor surgical risk for a gastroenterostomy. The subnutrition, which is usually the result of an inadequate diet, should be overcome by rest in bed and an ample diet of not less than 2500 calories daily. If the gastric symptoms are pronounced, combined mouth and rectal feeding should be employed. If the symptoms are not severe, the dietetic indications for ulcer should be in part disregarded and the patient given a more ample diet.

When the vomiting is severe, duodenal feeding may prove useful.

The anemia so often present in these cases, which is sometimes due to hemorrhage, but more often to a low diet and the absorption of hemolysins from the intestine, is overcome by iron and arsenic and a more ample diet. Reduced iron and the citro-chlorid of iron are the best preparations. It is a good practice when a patient is placed upon a restricted diet to administer iron from the beginning as a matter of routine, so as to prevent the anemia.

The low blood pressure and general circulatory asthenia which some of these patients present, is best overcome by the use of strophanthin and a more ample and stimulating diet.

The low resistance to infection which exists in many of these patients, partly as the result of the above condition and partly due to the intestinal toxemia, can undoubtedly be increased by the use of appropriate combined vaccines at a suitable time prior to operation.

Before operation, unless contraindicated, the gastric motility and acidity should be determined by the Roentgen ray and the stomach tube so as to furnish a standard of comparison for similar examinations after operation.

The post-operative care of these patients is even more essential. Notwithstanding this, it is the custom of most surgeons to dismiss these patients four or five weeks after operation and give them the erroneous impression that they are entirely well and require no further care. They should, on the contrary, be told that the good results of operation will not be obtained unless medical supervision and more or less treatment is carried out for a period of not less than one year.

The indications for such post-operative care are the following:

1. In those cases where a simple gastroenterostomy is performed with a patent pylorus, the ulcer persists for a variable length of time and will require, to a great extent, the usual medical treatment for ulcer. These later require close observation, as frequently the gastroenterostomy opening closes and the conditions prior to operation are again established. If the underlying causes still exist, as is frequently the case, it will again form, either on the site of the old ulcer, or in a new location.

2. In a small proportion of cases, an ulcer forms at the gastroenterostomy opening. This is less likely to occur if rest and dietetic restrictions are closely observed immediately after operation.

3. Localized adhesions, or a general perigastritis, not infrequently develops after operating, causing pain and other gastric disturbance.

4. Localized, or general gastritis, which frequently coexists with gastric ulcer, often causes vomiting and eructations after operation. This condition is to be suspected if the patient is vomiting and the vomitus contains considerable mucus. In these cases, gastric analysis prior to operation shows a subacidity and considerable mucus.

5. The normal physiological functions of the stomach are more or less disturbed as the result of these operative procedures. Normally, the stomach prepares the food for the intestine by rendering it softer, equalizing its temperature, and partly digesting and disinfecting it. Furthermore, the acid gastric juice as it enters the first part of the duodenum through the pylorus, stimulates the secretion, which, when absorbed, activates the pancreas and stimulates intestinal secretion and motility. By a gastroenterostomy these processes are more or less impaired. As a result of this, in a small proportion of cases, a chronic enterocolitis is established, just as in achylia gastrica.

6. Certain more or less latent abdominal lesions persisting after operation require attention. Of these the most common are—Pericolitic, or adhesions at the ileocecal valve, causing stasis; chronic pancreatitis, and a chronic catarrhal cholecystitis which, at operation, does not present sufficient evidence to justify its removal.

7. Certain extraabdominal lesions which may be predisposing causes

to the re-development of an ulcer, should be looked for and receive post-operative care. Of these we may mention arteriosclerosis, cardiac disease and infective foci.

It is well to bear in mind that operations for ulcers upon patients who have general abdominal ptosis are most likely to end in failure. Cases in which at operation no induration is found and in which no gastroenterostomy is performed, should be re-examined. If occult blood is persistently present in the stomach contents and feces, and if the string test is repeatedly positive, the case should be regarded, unless some other evident cause for the blood exists, as a superficial ulcer or erosion, and receive the usual medical treatment for that condition.

The object of post-operative care is to prevent the development of certain conditions and to treat such as may already exist. The character and extent of such treatment will depend in part upon existing lesions and the results of a Roentgen ray examination and gastric analysis made four to six weeks after operation. These will determine the immediate results of the operation when compared with similar findings prior to operation. If the gastroenterostomy opening is patent and the stomach empties itself of a barium meal in less than four hours, the immediate result as to drainage is good. If, in addition, gastric analysis shows a marked diminution in the total acidity and an absence of occult blood, the immediate success of the operation is established. But, irrespective of these findings, as already stated, all cases should have some care for not less than one year.

The chief therapeutic factor is the diet. For three days after operation, to insure absolute rest of the stomach, and to prevent vomiting, no food should be given by mouth. On the second and third day hot water may be given in small quantities and at frequent intervals. Rectal feeding should be given for the first six days after operation. For the first two days normal salt solution, or plain hot water with sodium bicarbonate and glucose, will suffice. Coffee may be added if shock is present. For the balance of the six days, or longer if vomiting is present, nutrient enemata should be given containing 10 ounces of milk peptonized for two to six hours, $1\frac{1}{2}$ ounces of glucose and M. VII of tincture of opium. These should be given by Murphy drip four to six times daily. These will furnish daily 65.6 grams of proteids, 75 grams of fat, and 354 grams of carbohydrates, and a total food value of 2,238 calories. That most of of such enemata is absorbed is evident from the fact that patients fed in this way from three to eight weeks have maintained their strength with but little loss in weight. On the fourth day we may give by mouth, in small quantities, whey, broths, a solution of egg albumen and milk sugar, or strained gruel and milk sugar. On the fifth day diluted milk may be given and thereafter the liquid diet is gradually increased so that by the seventh day the rectal feeding can be discontinued unless vomiting is present. If the patient is vomiting and the rectum is intolerant, subcutaneous feeding may be employed. Later, after operation, for the same purpose, duodenal feeding may prove useful. For the balance of the first month after operation the diet should consist of liquid and semisolid food, including milk, cereals, puddings, crackers softened in milk, soft-boiled and poached eggs, and scraped or chopped beef. For the balance of the three months to these may be added breads, tender vegetables and meats. For the balance of the year it is well to assume that in all these patients there exists a tendency to the formation of ulcer and that their diet should be as it were an anti-ulcer diet. Articles of food which would produce undue friction against the gastric mucosa by reason of their hardness, should be avoided. Among these are raw fruits and coarse vegetables. Articles of food which stimulate the secretions excessively should be at least restricted, such as sodium chlorid, spices, meat extracts and beef. Articles of food which overtax gastric activity by reason of the length of time which they remain in the stomach, are to be avoided. Milk should constitute an important part of the diet for one year. Large meals should be avoided and mastication should be thorough.

The other therapeutic measures are the restriction of exercise for at least three months.

Cases in which the acidity is high should receive sodium bicarbonate and belladonna. If the gastric contents show the presence of blood, and if symptoms exist, bismuth should be given. Cases with abdominal

ptosis should have appropriate abdominal support. Cases in which vomiting occur and in which considerable mucus is found in the gastric contents, should have gastric lavage.

Cases in which the vomiting is persistent and the vomitus consists of large quantities of biliary fluid, suggest the formation of a vicious circle. These should have an immediate Roentgen ray examination. If a vicious circle exists, an entero-enterostomy is indicated.

At the end of one year, all cases should again have an x-ray examination and gastric analysis to determine the end-result of the operation.

I am convinced that if some or all of the above preparatory and post-operative care would be applied to all cases, the mortality of these operations would be lowered and the end-result improved.

DR. JOHN A. LEE:

"Dr. Pascual, who was to have opened the discussion on Dr. Rutz's paper, was unable to get here and asked me to come in his stead and said that he did not think I would have very much to say because after Dr. Rutz got through there wouldn't be very much to say, and I think he came pretty near hitting it right.

"Looking at the subject purely from the surgical rather than the gastroenterological standpoint, I don't know how it is in other institutions, but at St. Mary's Hospital we have been learning a lot from what Dr. Rutz has taught us, and I think our final results in our gastro-enterostomies for duodenal and gastric ulcers are showing a greater percentage of permanent cures than they did, previous to his advent on the staff, and his determination to make us see the light in the pre- and post-operative care of these cases has resulted in an improvement in our results, and the patients do not go out improperly prepared to meet the exigencies which their condition in life demands; and I think the more we see of those cases the more we appreciate the fact that the surgeon merely places the patient in a position so that he can get well if he has the proper treatment afterwards. I think we are coming more and more to appreciate the fact that surgery does not displace gastroenterology, but surgery does in certain cases put the gastroenterologist in a position where he can cure his patient. That is most important. I think if it were a question as to whether a person should have surgery done or good gastroenterology done, I think he would be much more comfortable with gastroenterology without surgery than with surgery without gastroenterology.

"Now, the question of pre-operative treatment and the predisposing conditions which go to make for ulcer of the stomach have been made a very interesting study for a number of years. The question of appendicitis is always present, and appendicitis is such a remarkable disease and its manifestations are so widespread that we could talk about the influence of different infections of the appendix on the different organs all night. I am struck more and more, as I delve into those things, with the influence with that type of appendicitis, which we now call an involution or a subacute appendix, has, an appendicitis that never lights up into a severe acute infection, but gives rise to tenderness and pain, and following one or two attacks of that nature we begin to get hyperacidity of the stomach and from what we get pyro spasm, and if that thing exists long enough it develops into an ulcer which can be shown by the x-ray and can be demonstrated at operation.

"There are many other primary lesions in the abdomen which will set up irritations around the pylorus, giving rise to hyperacidity and pylorus spasm. On more than one occasion I have demonstrated, to my own satisfaction at least, that irritations around an old irritable ulcer of the cervix in women have set up disturbances in the stomach or duodenum, which, if allowed to go at length, would result in a clinical ulcer.

"The question of primary infection in the teeth and tonsils must be considered. This whole question of a focal infection is very interesting and it broadens the more we look into it.

"In regard to the post-operative treatment, I think nothing can be said. I think that, as Dr. Rutz has pointed out, all those cases demand the most careful treatment at the hands of a most careful man if they are going to get well. The ulcer is only one feature of their pathological condition."

DR. ARTHUR H. BOGART:

"In my experience, most of these cases had too much medical

treatment and many medical ulcer cures. Some of them have been treated medically for ten or twelve years and cured a half-dozen times until finally they become so bad that they come to the surgeon in search of relief. It may be that the pre-operative treatment had a whole lot to do with curing these conditions.

"This discussion recalls to my mind the statement of Dr. Mayo that no ulcer case should be subjected to operation until it has been cured eight or nine times. We all know that any gastric or duodenal ulcer, if you put the patient in bed and place him on a light diet the chances of operation are going to be slim. They all show improvement under this form of treatment.

"In regard to the post-operative treatment of these cases, I don't think there is any doubt that they should be treated medically. However, I have neither the time nor ability to treat cases immediately after operation as Dr. Rutz has suggested. At the end of twenty-four hours my patients get water (I don't care whether it is hot or cold), I sit them up straight, and in a little time they get peptonized milk. I don't believe they should all have bicarbonate of soda and the rest of the treatment the doctor has presented in order to complete a cure. I have had a number of cases that have been cured without that method of treatment. They have been careful with respect to meat, of course. They have been cured for several years.

"I believe that in the case of these patients the less medical attention they have had the less attention is directed to their stomach, the better off they are, because if they have too much medical treatment and too much attention directed to their stomachs they are always thinking of their condition. I don't believe in too much medical treatment after operation, and certainly not this diet that the doctor talks about immediately after operation. Those patients can begin to take diet very soon.

"So far as rectal feeding is concerned, I would say that I do not place much value in it in these cases and I personally have never had occasion to make use of it."

DR. J. RICHARD KEVIN:

"I should like to say that the last two cases that I did, to prevent the vicious circle, I used and am now using a No. 2, and as large as a No. 3, silk suture, tying just beyond the pylorus, between the ulcer and the gastroenterostomy, and then bringing it around and sewing some of the omentum, fixing it so as to avoid the possibility of the circle. How long that will remain intact, how long that will prevent the possibility of the circle re-establishing itself remains to be seen.

"I believe that the after-treatment consists very largely in making your opening sufficiently large and to make it at a point so that you get at least an inch and a half. In that way I feel quite secure.

"I don't exactly agree with Dr. Bogart so far as the after-treatment is concerned because, as Dr. Lee has said, we have been surprised immeasurably by the findings and the deep study that Dr. Rutz has given to these particular cases. I believe that the after diet is very beneficial with perhaps not all the restrictions that the usual medical internist will give to these cases, but so far as the immediate treatment is concerned it seems to me that it is very valuable to carry out the line of treatment that Dr. Rutz has described to us tonight."

DR. WILLIAM LINDER:

"Let us just review what gastroenterostomy does. In the cure of ulcer I think that we surgeons indirectly are giving the patient medical treatment. We know that the stomach is not just a hollow bag and drainage is not the only thing that we accomplish by gastroenterostomy. It has been shown that the immediate effect of the entrance of large quantities of bile and intestinal juices on the stomach is to produce alkalinity, which reduces acidity. That is the medication that the surgeon produces after gastroenterostomy.

"There is no question, I believe, here or anywhere else in the minds of any one who has done much gastric surgery, that these cases require post-operative care. It has been my custom to instruct patients that they are not to eat meats or partake of meat broths or to indulge in any stimulating diet that is apt to stimulate the production of gastric juices for at least six months post-operative, and, as a matter of routine, I send these patients back to their physicians with instructions that they should be kept on an alkaline, particularly if their acidity before operation

has been considerable, and that they should be given bicarbonate of soda every once in a while, and after six months, if those instructions are followed and they are kept on a diet of milk, eggs, cereals and vegetables, they can go back on a regular diet, with the restriction, however, that they should not partake of any irritating food, and they haven't had to come back.

"In regard to the question that Dr. Kevin brought up about the closure of the pylorus, I would say that I have closed the pylorus many a time. Instead of silk, however, I use chomic gut. I do not believe it is necessary to close the pylorus to prevent the vicious circle. The only indication, to my mind, which calls for closure of the pylorus is in cases where there is a considerably indurated duodenal ulcer, where there is bleeding and where I feel certain that food passing over the ulcer will cause bleeding. We know that food is propelled along the lesser curvature into the pylorus and even when a gastroenterostomy functionates a certain amount of food will go through the pylorus and irritate the ulcer, but, as Dr. Kevin says, it is not possible to say how long it will stay open. It is very difficult to tell."

The doctor cited a case in point and went on to say:

"I have implanted a portion of the omentum and the pylorus has been effectually closed. I again opened up a case three months after for a gall-bladder condition and the pylorus was patent. The question is: Is the suture absorbed, or has the suture cut through, and does anastomosis take place by virtue of the fact of the implanted omentum? I cannot say. I could not see a scar. The only effectual way is to make a separation after the method of vanEichelsberg, turning in both ends and implanting a piece of omentum in between. It is sometimes funny how our operative results turn out. I had a case where I wanted to sterilize the patient and did an interposition operation. She wanted to know what her chances of becoming pregnant were and I told her she had one chance out of a hundred, and the first 'crack out of the box' she became pregnant. So the mere tying off of the pylorus doesn't say it is or is not going to stay patent.

"With Dr. Bogart I have never resorted to rectal feeding. When a case vomits persistently I have never yet failed to go into the abdomen and in two or three instances I found there was a little axiorotation of the jejunum to the stomach. Sometimes in tacking the omentum (to the jejunum and stomach) drainage is not good. I have had three cases in the last five years where I did not apply the jejunum smoothly to the stomach, so much so that I now pick up the jejunum and milk it up to just opposite the mesenteric border and make a little bit of a peritoneal nick with a knife, and the bleeding area will show me just exactly where the suture line is, and I also make a little nick in the stomach, and that also shows me that (suture) line. I believe that in such way it is applied smoothly and fits like a coat-sleeve will fit on a coat, and I arrange to have a sort of a pocket on the posterior surface of the jejunum, and am careful about tacking my omentum on to the jejunum and to the stomach, with the result that I don't have a vicious circle. I think a vicious circle as a result of a patent pylorus does not exist. It used to exist with a long loop operation. If you apply the jejunum at Treitz's ligament and if there is a band strip it down and it will stay right and act right, and when it does not act right right don't be afraid to go in there and find that you didn't do a nice tailoring job."

DR. ONSLOW A. GORDON:

"I would like to say that since turning my cases over to Dr. Rutz I have very much better results and have seen patients gain weight continuously under rectal feeding, but rectal feeding as usually carried out I think I will agree with Dr. Bogart amounts to nothing, but scientifically carried out I think we can do a good deal with it."

DR. ANTHONY A. RUTZ:

"I do not think that Dr. Bogart understood my remarks. It was not intended that all those restriction should apply to every case. The only restriction common to all is the diet. The cases to receive sodium bicarbonate are those in which gastric analysis shows a distinct hyperacidity. Some of those cases have a total acidity as high as 90 and may require sodium bicarbonate; and the remarks as to pre-operative care did not apply to the general medical treatment of ulcer, but merely to cases that were chosen for operation."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1919, No. 6

JUNE, 1919

4 PAGES

STUDIES IN ELECTRO-PATHOLOGY.

STUDIES IN ELECTRO-PATHOLOGY. By A. White Robertson, L. R. C. P., and S. E. Temp. Major, R. A. M. C., New York, E. P. Dutton and Co., 1918. 304 pp. Illustrated. Plates. 8vo. \$5.00

This is one of the most remarkable books the reviewer has been privileged to read, yet, radical as are the author's views, he backs them with such a weight of scientific evidence as to compel our thoughtful consideration.

The chief theme the author develops is that the body is an electrical mechanism and that the next forward step in medicine is to study and use this new concept. He shows that light is an electro-magnetic disturbance, that the visible spectrum is but a small fraction of light-energy and that in the infra red and ultra violet ends of the spectrum, especially in the latter, containing the X-ray and radium rays, reside energies which have a profound though invisible influence upon metabolism. He shows that every unit in the animal and vegetable world is an electrical mechanism, electrically controlled and operated and deriving its energy from food and the electro-magnetic disturbance we call light and each endowed by Nature with pigments, color-screens, to absorb or ward off useful or harmful light rays. The riot of color in the natural world is thus seen to be useful as well as ornamental. With a wealth of physico-chemical detail he shows the human body as an electrical mechanism so devised that every step in metabolism is the result of reactions between electrolytes or electrically charged ions perpetually seeking yet ever denied equilibrium. He shows that every living thing must obey the laws of Nature or perish. Man alone has set up an artificial life, civilization. The more civilized he becomes the more he departs from Nature's laws and eventually his civilization must collapse of its own weight, like a house of cards, over-burdened with defective members of society.

Having shown that the body is electrically operated, that in health it maintains a definite electrical tension which is prevented from returning to earth or air by the insulating body

lipoids, he devotes several chapters to the electro-pathology of two groups of diseases. In infections the increased temperature lowers the insulating value of the body lipoids and permits rapid loss of electrical tension as shown by the galvanometer. His remedy, which has been tried in a large number of infected war wounds and pneumonia, consists in the use of a neutral rock-oil which by insulating the infected area, stops electrical diffusion and permits the reaccumulation of the E. M. F. necessary to life. His theories regarding the second group of deficiency diseases is equally ingenious, radical and thought-compelling. Recent researches having shown that certain mysterious food principles called vitamins are essential to life, the author maintains that food which has lost its native electrical charge through overcooking or too long perservation is useless. He calls attention to the rigid food laws of the orthodox Jews and claims that the vast bulk of modern metabolic disorders is the result of eating electrically "dead" food—a cold storage, canned diet producing what he calls "white man's beri-beri." The remedy is to return so far as we may to Nature's first principles—fresh air, sunshine, fresh foods. Failing this, with the increasing propagation of defective members of society living an ever more artificial life, he foresees the decay and collapse of our present civilization and its replacement by a newer, more virile people sprung from the borders of civilization, people as yet living close to the earth.

It is impossible in a review to tell of the wealth of fact and philosophy in this book. Surgeon and internist alike will find herein so much that is practical and well as theoretical, such firm foundation for the author's radical views as to compel their attention to what is probably the beginning of a new era in medicine—study of helio-energetics.

E. B. SMITH.

STUDIES IN ELECTRO-PHYSIOLOGY.

STUDIES IN ELECTRO-PHYSIOLOGY (Animal and Vegetable). By Arthur E. Baines, Consulting

Electrician. With thirty-one original drawings in color, by Gladys T. Baines, and numerous other illustrations. New York, E. P. Dutton and Co., London, George Routledge and Sons, Ltd. 1918. 8vo. Pp. xxix, 291. \$5.

This is a peculiar book; and one, therefore, the substance of which is difficult to summarize in a brief review. In the first three chapters the general aspect of the subject, the aim and chief conclusions of the author's studies and some of his matter-of-fact findings are set forth. Concisely stated, he has constantly obtained from leaves, fruits, bulbs, tubers, seeds and entire living plants definitely directed galvanometric deflections which are more pronounced during the actively growing than the resting state, and which are attributable to electricity immediately or ultimately derived from the environment of each plant and stored in its several organs and tissues somewhat as it is stored in a condenser; membranes, skins and outer coatings, generally, serving as insulators for its conservation. He admits the generation of a certain amount of electricity in association with the chemical changes continually occurring in living plants, but ascribes to this a secondary role; laying great stress upon the value to the plant of the stored electric energy derived from air and earth, which he considers not merely essential to, but dynamically responsible for nutrition, growth and the vital processes, generally, of all plants. Every living thing, he asserts (p. 6), "has a well-defined electric system; the non-living possessing *capacity* only; and that only in conjunction with moisture." "Every tree, shrub, plant, fruit, vegetable, tuber and seed is an electric cell, differing from cells made by human agency in that it cannot be polarised or discharged so long as it is structurally perfect" (p. 6). "Growth may be stimulated by means of a continuous current of electricity of low potential and proper sign," (p. 7).

Chapter IV, purporting to be "A Review of Electro-Physiological Research," though interesting, is so inadequate and faulty as to be quite misleading to one not familiar with the subject. He refers, indeed to some of the work of Galvani, Volta, Humboldt, Aldini, Nobili and du Bois-Reymond, but in language and manner which plainly show his lack of first-hand familiarity with either their published writings or matter-of-fact contributions to the subject. Then he proceeds to adversely criticise what he, obviously, either misunderstands or misinterprets. Here is an example of his criticism: Having briefly stated some of the earlier and simpler generalizations concerning the body and tissue-currents obtainable from living animals he says, (p. 52), "It is over one hundred years since Du Bois-Reymond taught us this, and we have learned nothing from it!" Emil du Bois-Reymond (to whom the author here refers) was *born* about one hundred years ago (7, November 1818), pub-

lished his first paper on animal electricity in 1842, and continued to make valuable contributions to that branch of science until very near the end of his life, in 1896. The first volume of his classic work, "Untersuchungen über thierische Elektrizität," was published in 1848 and the second part of the second volume in 1860. His "Gesammelte Abhandlungen zur Muskel und Nervenphysik," which embodies not only many of his brilliant findings and suggestions but his more mature views as well, appeared serially from 1875 to 1877. Through du Bois-Reymond too warmly insisted upon certain conceptions which have since been shown to rest upon faulty inference, to say that "we have learned nothing from his work and teachings is scarcely short of the ridiculous, for he was one of the most energetic and brilliantly productive of all workers in the field of electro-physiology. So much concerning a single sentence of a chapter which, as a whole, conveys the impression that had it not been for the failure of all former workers in the field of animal electricity "to discern certain facts of prime importance, facts which would have made all things clear to them, electro-physiology would long ago have enlightened and led the world of medicine." (p. 49.) To these facts, which the author imagines he, himself has but recently discovered, he promises to give "the prominence they deserve." (p. 49.)

In several of the remaining chapters, which are made up in great measure of quotations from well-known text-books and treatises, the author gives further evidence of his lack of acquaintance with modern—not to say recent—knowledge of electro-physiology, yet persists in reiterating the idea that the concepts of well-informed, contemporary physiologists are *fundamentally* erroneous.

In the chapters dealing with the reactions of muscle and nerve he gives great prominence to the asserted explanatory value of electric charge and discharge. This idea seems worthy of careful experimental investigation; but the author reasons chiefly by analogy which, as most of us well know, is, at best, merely suggestive, and in no sense conclusive; and he fails to furnish for his contentions direct experimental evidence approaching even a fair degree of adequacy, yet brushes aside, in wholesale fashion, or quite entirely ignores the logical significance of the already amassed experimental evidence bearing upon the questions at issue.

Broadly speaking, the author's findings are rather interesting, but in no sense startling (as he, himself, seems to imagine), while his contentions are suggestive but far from convincing. And, quite apart from the many a distinct impression to the effect that its author has ventured to deal with a branch of science in the methods of which he has had but little, if any, training and in the matter of which he is not well versed. He seems, in fact, to have started out armed with a pet *preconception* regarding

what he imagines to be the fundamental cause of practically all physiological phenomena and processes, and quite *determined* to give it precedence over all other conceptions.

In view of the possibility that this terminal criticism may appear to anyone to be over drastic or even unwarranted, the reviewer recommends careful, critical reading of the book, and volunteers more detailed discussion of its contents, if need be.

JOHN C. CARDWELL.

THE DISABLED SOLDIER.

THE DISABLED SOLDIER. By Douglas C. McMurtrie, Director, Red Cross Institute for Crippled and Disabled Men. New York, The Macmillan Company, 1919. 232 pp. Illustrated. 12mo. Cloth, \$2.00.

This book deals with the reconstruction and re-education of the crippled soldier. The problem is considered in an executive and economic manner rather than in a technical sense.

The plans made by foreign nations for the care of those incapacitated by the war are carefully gone over and deductions drawn for the care of our own disabled soldiers. To one not familiar with the subject the number and diversity of the crafts taught is truly amazing.

The reeducation of the blind, psychoneurotic and tuberculous is also considered.

The introductory chapter tracing the development of this work from the middle ages to the present time is one of great historic interest.

The book is carefully planned, well written and of general interest.

J. C. R.

AUTOBIOGRAPHY OF AN ANDROGYNE.

AUTOBIOGRAPHY OF AN ANDROGYNE. By Earl Lind ("Ralph Werther"—"Jennie June"). Edited, with Introduction by Alfred W. Herzog, Ph. B., A. M., M. D. New York, "The Medical-Legal Journal," 1918. 265 pp. Illustrated. 12mo. Price, \$4.00.

The name of the author of this abnormal biography is of no interest. She, to accept his own classification, tells the inconveniences, trials and sufferings of her unsocial condition for the purpose of securing some amelioration through legal recognition of his invasion. A woman's mind, ways and proclivities encased in a body which is only one third feminine, and in particular possessing organs for which (s)he has no use but lacking an orifice for which she would have great use! *helas*, what a mess! Of course every person who is not normal is to be pitied, and so far as is consistent with running a world should be allowed all possible freedom. Whether

the attitude of scientists and moralists toward the relation of the sexes which is so peculiar to this century, and bids fair to be its high light when looked at by the twenty-first can be made to include a benevolent view of congenital inverts, or ought to, is a fine subject for the expression of variant opinions. The author makes this plea—pity us, spare us: we are what we are against our wills. As for the substance of the book itself,—the reader will do well to have some apomorphine at hand. \$4.00 is some price, too.

A. F. E.

HOSPITAL ACCOUNTING AND STATISTICS.

HOSPITAL ACCOUNTING AND STATISTICS.

Compiled and Arranged by William V. S. Thorne, Treasurer and Member of the Board of Managers of the Presbyterian Hospital in the City of New York, etc. Fourth Edition. New York, E. P. Dutton & Co., 1918. 119 pp. 8vo. Cloth, \$1.50

The book shows evidence of being written by a man of large affairs, and to cover the book-keeping needs of an institution well endowed and ready to spend a considerable sum of money for the purpose of having an elaborate system of records and statistics. for the ordinary institution which is constantly trying to secure sufficient funds to meet the demands made upon it, one would hesitate to recommend the elaborate system developed by the author. That the book is a masterly effort cannot be denied, but that the system will be widely adopted by institutions is very doubtful, on account of the amount of expert labor required to carry out the plan as outlined in this treatise.

RICHARD E. SHAW.

ROENTGENOTHERAPY.

ROENTGENOTHERAPY. By Albert Franklin Tyler, B. Sc., M. D. St. Louis, C. V. Mosby Company, 1918. 162 pp. 111 Illustrations. 8vo. Cloth, \$2.50.

In this small volume the author attempts to fill a long felt gap in Roentgen literature, on the technic, indications and results of Roentgenotherapy. The style is extremely simple yet convincing and there is a degree of sincerity permeating the leaves which immediately adds weight to its value.

The subject is presented in five sections, the first being devoted to a brief description of required apparatus and advice as to the most practical for treatment work.

Diseases are divided into two groups regardless of their nature, those requiring superficial and those, deep therapy. The general technic is given in simple and extremely plain terms which the novice can readily appreciate and variations for special diseases as they are taken up, is well and concisely described.

Section two explains in detail the benign and malignant conditions suitable for superficial therapy and section three considers the lesions requiring deep or penetrating rays. A special short chapter is devoted to malignant growths, in the treatment of which, the author has evidently attained considerable success. A final chapter is devoted to brief case histories, illustrating the technic and results obtained by the author's methods.

The volume is of special value to the beginner, there being no space devoted to superfluous reading matter. It should take its place on the shelf of the Roentgenographer's library and will be of considerable assistance in the development of a more uniform technic for treatment which at present varies so greatly among the experienced ones of the specialty.

MILTON G. WASCH.

CLINICAL MICROSCOPY AND CHEMISTRY.

CLINICAL MICROSCOPY AND CHEMISTRY. By F. A. McJunkin, M. A., M. D. Philadelphia and London, W. B. Saunders Company, 1919. 470 pp. Illustrated Plates 8vo. Cloth, \$3.50

This is a work which will be of value to laboratory workers and those physicians who make their own clinical analyses. It covers the entire field of laboratory diagnosis, laying special emphasis on technical methods. The author has endeavored to make this a practical work and has not included the theoretical discussions which are found in large books. It is well written, clear and concise in description and contains numerous excellent illustrations.

E. B. SMITH.

QUARTERLY MEDICAL CLINICS.

QUARTERLY MEDICAL CLINICS. A Series of Consecutive Clinical Demonstrations and Lectures. By Frank Smithies, M. D., F. A. C. P. Associate Professor of Medicine, University of Illinois: Gastro-Enterologist to Augustana Hospital, etc. Medicine and Surgery Publishing Company, Inc. St. Louis. Volume I. Number I. January, 1919. Annual Subscription, \$5 paper, \$8, cloth. Single copies \$1.50 paper, \$2.25 cloth.

This represents the first of a series of clinical lectures and demonstrations given by Dr. Smithies at the Augustana Hospital. The book is the result of requests for his mimeographed notes for students and represents the bulk of cases presented before his classes. Quoting from Dr. Smithies' preface, one may find the only apology which is needed for the book is the following statement: "Of necessity, some of the work presented is rather elementary. For this, no excuse is offered; QUARTERLY MEDICAL CLINICS is published for teaching purposes. A considerable experience in teaching has impressed me with the fact that in instructing medical men, very little must be taken for granted: the simplest methods of

clinical and laboratory examination are often not clearly understood, even though they may be spoken of glibly and it is taken for granted that they are generally understood."

The method of presentation follows the usual form of anamnesis, giving the comprehensive title of the case first, then the chief complaint, past and present history, physical examination and the various forms of examination; the doctor's discussion on the treatment with some special notes on various methods, both laboratory and clinical, round out the case. A number of the case reports are illustrated with radiographs and photographs of pathological material. It is by no means an easy matter to submit a critical review of a work of this kind because the diversity of material and the method of presentation is so varied that one gathers something of the impression that Bill Nye did when he tried to read the dictionary and complained that the subject changed so often. In all seriousness, clinical reports of this sort have proved in the past to have a distinct place in the medical teaching, as they should have in medical reading. The freedom from verbiage and comprehensiveness of the present volume should make this series a valuable asset to both internist and general practitioner and, for that matter, to the surgeon who desires to keep his diagnostic sense for gastrointestinal cases keen and polished.

H. G. W.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this column, we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

CLINICAL MICROSCOPY AND CHEMISTRY. By F. A. McJunkin, M. A., M. D. Philadelphia and London, W. B. Saunders Company, 1919. 470 pp. Illustrated. Plates. 8vo. Cloth, \$3.50.

QUARTERLY MEDICAL CLINICS. A Series of Consecutive Clinical Demonstrations and Lectures by Frank Smithies, M. D., F. A. C. P. Augustana Hospital, Chicago. Volume I, Number 1, January, 1919. Published by Medicine and Surgery Publishing Co., St. Louis. Annual Subscription, \$5.00 paper; \$8.00, cloth.

A TEXT-BOOK OF RADIOLOGY (X-RAYS). By Edward Reginald Morton, M. D. Second Edition, enlarged and thoroughly revised. St. Louis, C. V. Mosby Company, 1918. 264 pp. 39 Illustrations. 36 Plates. 8vo. Cloth, \$4.50.

TROPICAL SURGERY AND DISEASES OF THE FAR EAST. By John R. McDill, M. D., F. A. C. S., Major, Medical Reserve Corps, U. S. Army. St. Louis, C. V. Mosby Company, 1918. 302 pp. Illustrated. 8vo. Cloth, \$4.50.

ESSENTIALS OF SURGERY. A Textbook of Surgery for Student and Graduate Nurses and for those interested in the care of the Sick. By Archibald Leete McDonald, M. D. Phila. & London, J. B. Lippincott Company, 1919. 265 pp. Illustrated. 12mo. Cloth, \$2.00.

PSYCHOTHERAPEUTICS. By Frederic H. Gerrish, (and others). Boston, Richard G. Badger. 186 pp. 12mo. Cloth, \$1.00.

SEX-HYGIENE. A Talk to College Boys. By Frederic Henry Gerrish, M. D., LL. D. Boston, The Gorham Press, (Richard G. Badger), 1917. 51 pp. 12mo. Cloth, 60 cents.

Medical Society of the County of Kings

MONTHLY BULLETIN TO MEMBERS

MARCH—MAY, 1919

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Stated Meeting, March 18, 1919.

The President, Dr. Stephen H. Lutz in the chair.

There were about 100 members present. The meeting was called to order at 9 p. m., and the minutes of the previous meeting were read, approved and placed on file.

Report of the Council.

The Council reported favorably upon the following applications for membership:

William J. Durkin, 2353 Foster Ave., Univ. Md., 1911; R. W. Shearman; Memb. Com.; May '18.

Mary E. Fish-Fleckles, 255 Macon St., N. Y. M. C. & H. for Wom., 1894; Harriet W. Hale, Mary E. Potter; Dec. '18.

Edward Frothingham, Pelham Bay P'k, N. Y., N. Y. Hom. M. Coll., 1918; W. Kinne, J. A. Cooley; Feb. '19.

Alexander Hitlin, 685 Willoughby Ave., P. & S., N. Y., 1905; C. E. Scofield, Memb. Com.; Jan. '19.

Philip Mininberg, 8771 21st Ave., Univ. & Bell., 1915; E. H. Mayne, Memb. Com.; April '18.

Adele L. Palmitier, 1556 New York Ave., N. Y. Ecl., M. Coll., 1889; Mary E. Potter, B. F. Corwin; Nov. '18.

Foster H. Platt, 703 Sterling Place, Univ. Vt., 1915; E. L. Cochrane, H. W. Vinicombe; Dec. '18.

For Reinstatement

Bernard B. Berkowitz, 170 Leonard St., Balt. Univ., 1899; Mar. '19.

David Gingold, 119A Sumner Ave., Cornell, 1900; Mar. '19.

Election of Members

The following, duly proposed and elected by the Council, were declared elected to active membership:

Richard Birnie, 646 Herkimer St., Harvard, 1911; H. B. Matthews, Memb. Com.; May '18.

Joseph A. Driscoll, 171 Washington Park,

L. I. C. H., 1908; H. B. Matthews, Memb. Com.; May '18.

John H. Erling, Jr., 1017 39th Street, L. I. C. H., 1894; Wm. Linder, Memb. Com.; Jan. '19.

For Reinstatement

Max Goldstein, 331 Roebling St., L. I. C. H., 1910. Feb. 19.

Application for Membership.

Applications for membership were received from the following:

Charles Breitman, 57 Sumner Ave., Cornell, 1910; A. M. Judd, Memb. Com.; Mar. '19. Abraham Koplowitz, 333 Stone Ave., L. I. C. H., 1899; A. M. Judd, Memb. Com.; Mar. '19.

Jacob L. Krupp, 485 Stone Ave., L. I. C. H., 1906; A. M. Judd, Memb. Com.; Mar. '19.

John B. Neary, 203 Underhill Ave., Albany, 1901; A. M. Judd, Memb. Com.; Mar. '19.

Edward Urbane Reed, 91 Winthrop St., U. of Pa., 1905; G. A. Merrill, R. W. Shearman; Mar. '19.

Abraham Walzer, 812 Bedford Ave., Cornell, 1908; N. H. Rachlin, H. B. Matthews; Mar. '19.

The President read the Act to amend the Public Health Law in the relation to the practice of nursing. It was moved, seconded and carried that the Society endorse this Act.

A communication from the North Brooklyn Medical Society acknowledging the receipt of \$140 to be added to the general fund to fight Compulsory Health Insurance, was read.

Scientific Program

Paper: "Newer Methods of Treatment in Pulmonary Tuberculosis."

By MOSES KAHN, M. D.

Dr. J. A. Lee and Dr. H. G. Webster reported what the committees appointed at the previous meeting had done to defeat the Davenport-Donahue Bill.

The meeting adjourned at 11 p. m.

CHARLES E. SCOFIELD,
per E. K.

Secretary.

LONG ISLAND MEDICAL JOURNAL

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JULY, 1919

NO. 7

CLINICAL MEETING OF THE STAFF OF THE METHO- DIST EPISCOPAL HOSPITAL, BROOKLYN.

Cases Presented by Dr. Arthur H. Bogart.

Brooklyn, New York.

McBURNIEY'S POINT AND APPENDICITIS.

IN a series of about five hundred operations done during the year the writer finds that appendicitis easily heads the list, with hernia a good second.

To lose a case of appendicitis in these days is an unusual experience for any surgeon, provided he gets his cases early, which means as soon as the diagnosis can be made.

It is evident however that even at this time when patients frequently make their own diagnosis and insist upon operation, there still remains room for improvement in diagnosis. This is evident to the writer because of the fact that occasionally there is admitted to his service at the M. E. Hospital cases of appendicitis which are three or four days old, with a ruptured, gangrenous appendix, and perhaps a general peritonitis. It goes without saying that if this condition is allowed to go too far, even with operation the results may be doubtful.

It would appear that the absence of tenderness at McBurney's point had been responsible in some of these cases for seeming neglect and errors in diagnosis.

The enteroptosis wave which is now being dashed to pieces on the shores of time and experience if it has done nothing else, has shown to what an extent the abdominal viscera may be displaced. That the appendix is included in these wanderings is evident from the fact the writer in his own experience has removed it from almost every location in the abdomen, including the left iliac fossa in a case of transposed viscera. In all these cases the pain, tenderness, and rigidity were over the site of the appendix in uncomplicated cases, after the first few hours following the onset of symptoms.

Not infrequently particularly in women one finds the appendix entirely within the pelvis and giving symptoms which might be attributed to acute inflammatory disease of the pelvic organs. In such cases the tenderness and etc. are located much lower down,

and the diagnosis is not complete without a rectal or vaginal examination. The importance of a correct diagnosis in such cases is evident, when it is remembered that in the appendix case operation is indicated at once, while in the other it should not be done except to evacuate collections of pus.

Again in cases of undescended caecum one may find the appendix high up under the liver stimulating gall-bladder disease, and without the usual findings at McBurney's point, and a retrocaecal appendix may have its maximum point of tenderness in the loin.

It is as true today as it was when it was written, that pain, tenderness and rigidity at McBurney's point associated with the other usual symptoms usually means appendicitis; it is also true however that the absence of pain, tenderness, and rigidity at this point does not exclude appendicitis, for the reason that the appendix may be (and frequently is) located somewhere else.

CARCINOMA OF THE BODY OF THE UTERUS

Presentation of a Specimen

The patient from whom this specimen was removed, Mrs. J., age 51 years, was referred by Dr. R. W. Shearman.

Her chief complaint was metrorrhagia.

The family history was unimportant.

Patient began menstruating at the age of eighteen and passed the menopause at fifty-one years, she had given birth to three children, all instrumental deliveries. At one time following a nasal operation she suffered from a severe hemorrhage which was controlled with some difficulty, and was told at that time that she was "a bleeder."

Her present illness began three months ago when she began to flow and has continued to do with slight intermissions up to the time of operation. She suffered no pain, and was apparently in good health except for the bleeding. There was no odor to the discharge.

Vaginal examination at the time of admission showed the cervix soft, and easily dilatable, the uterus symmetrically enlarged, freely movable, and in normal position. There was no palpable masses in the fornices. Vagina and perineum normal.

Examination of the blood showed the coagulation time to be from five to eight minutes.

On March 17th, 1919, this specimen was removed, patient made a good recovery and left the hospital at the end of two weeks.

The growth springs from the posterior wall of the uterus, is cauliflower in appearance and is about two inches in diameter. The pathologist, Dr. Smith, reports the growth to be carcinoma.

PATHOLOGICAL FRACTURE OF THE RIGHT TIBIA

Presentation of patient and x-ray

Mrs. O. K. female, age 46 years. Admitted on March 9th, 1919. Patient has four brothers and three sisters alive and well. With the exception of the ordinary diseases of childhood patient has been well. She is married and has had one child which died at

the age of 8 years of diphtheria. She has had one miscarriage; she does not give any history of specific infection. Of late however she has complained of indefinite pains in both her arms and legs.

On March 8th while walking on the deck of a ship, patient suddenly fell without apparent cause. She suffered no pain at the time of the accident but found that she was unable to rise. She was brought to the hospital by the ambulance where it was found that she was suffering from a fracture of the tibia in the upper third. It was further noticed at this time that the patient suffered absolutely no pain during the examination which led us to suspect the true nature of the injury.

A spinal puncture has been made and an examination of the fluid gives a 4 plus Wasserman.

This patient has been examined by the Neurologist, Dr. Eastman, who reports as a result of his examination that she is suffering from *Tubes Dorsalis*, which is the most frequent cause of pathological fractures due to neuropathies. In most fractures of this nature the trauma may be very slight or perhaps entirely absent as was the case with this patient. They occur most frequently in the bones of the lower extremity and are characterized by the entire absence of pain which I am able to demonstrate in this case.

Union in this fracture (if it occurs at all) will be slow. Whether or not appropriate specific treatment will be of value in hastening union I am not prepared to state, it will be instituted, however, in the hope that it may prove beneficial.

Pathological fractures in our experience have been comparatively rare, and while they may occur as the result of various causes both local and general we have observed them most frequently in the long bones the result of metastatic involvement following carcinoma of the breast. I can recall at this moment two such cases, one in which the growth attacked the neck of the femur and another in which the shaft was involved. It is needless to add that fractures occurring under these conditions offer little or no hope of repair.

We have also had occasion to see pathological fractures particularly of the long bones in cases of extensive osteomyelitis requiring operation. In some of these cases following operation a fracture will occur unless steps have been taken by the application of a proper splint to prevent it. As near as I can recall at the present time these are the principal varieties of pathological fracture which I have observed.

The fracture in this case is very well shown in the X-ray which is being passed around.

CARCINOMA OF THE HEAD OF THE PANCREAS AND DUODENUM

Presentation of Specimen

S. A., age, 60 years, carpenter. This patient was referred from the medical service with the following history. His father died at the age of 80 years of pneumonia, mother died at the age of 60. His general health has always been good, except for slight attacks of rheumatism and malaria about twenty years ago. There is no history of venereal disease. Patient took alcohol moderately. His present illness began one month ago, it came on gradually with loss

of appetite and vomiting. He also suffered from slight pain in the epigastrium to the right of the mid-line which was relieved by vomiting. About three weeks ago small black particles began to appear in the vomitus which his doctor told him was blood.

On admission he was fairly comfortable, without pain, appetite poor. Bowel movements were black in color. He is slightly jaundiced which he says has been present for the past two days. Heart and lungs were normal. The abdomen was somewhat distended and tympanitic, otherwise negative.

The general impression was that this man was suffering from malignancy in the region of the pylorus, and was a fit subject for operation.

Patient did not take the anaesthetic well, vomiting large quantities of blood stained material so that it had to be discontinued and no operation was done, and patient died soon after.

At the post mortem examination the specimen which I present was removed, it consists of the head of the pancreas, and also a portion of the posterior wall of the duodenum which accounts for obstructive symptoms. I may add further that the stomach was found to be enormously distended with gas and blood stained fluid. The pathologist, Dr. Smith, reports this to be carcinoma.

CARCINOMA OF THE STOMACH

Presentation of Patient. Remarks, Subtotal gastrectomy, Jan. 4, 1919

J. H., 52 years of age. Carpenter. Referred by Dr. John McLeod.

History: Patient had always been well up to the onset of his present illness which began in March last, ten months ago. At that time he says he was made ill by the fumes of wood alcohol, he became very ill and nauseated. He took salts and was relieved for a time but has not felt well since. He suffered from severe griping pains after eating, the time varied from one-half to one hour after meals. In the interval between the attacks he was fairly comfortable. Rich food and eating rapidly seemed to increase the frequency of the attack. These attacks (during which he raised considerable gas and which lasted from one to two hours) were relieved by baking soda. He suffered from these attacks after every meal but did not vomit, although he was nauseated at times. Patient had not been jaundiced, and has had no hemorrhage either from the stomach or bowel.

Examination: Patient was much emaciated and cachectic, complained only of pain in the epigastric region. A sausage shaped mass could be felt in the region of the stomach extending from right to left. It was freely movable, not tender, and hard to the feel.

The pre-operative X-ray report in this case was as follows:

"The stomach as visualized by a bismuth meal, is situated about two inches below the pelvic brim when in the prone position, and drops to about five inches below the pelvic brim when in the erect position.

No bismuth is allowed to pass the pyloric end of the stomach coming to a blunt stop at this point and giving a distinct worm eaten appearance, this also dilating the stomach. The pylorus is not visualized, no bismuth being able to pass through it.

Six hours after the bismuth meal all the bismuth remains in

the stomach, and the pyloric end of the stomach still retains the same appearance.

Conclusion: From a radio-graphic standpoint the condition is that of a large malignant growth at the pyloric end of the stomach which is in all probability that of a carcinoma. This report was signed by J. F. Prendergast, M. D., of the New York X-ray laboratories."

From this report and our examination a diagnosis of carcinoma was made.

Operation: Jan. 4th, 1919. Subtotal gastrectomy, and posterior gastro-enterostomy. It was found that the growth involved the distal half of the stomach including the pylorus. There was very little glandular involvement except at the gastro-duodenal angle where a few enlarged glands were found, and removed.

Patient made an uninterrupted recovery from this operation and was taking fluid and farinaceous diet on the seventh day.

From the time of the operation there has been a rapid improvement in his condition. He now has a good appetite and has gained twenty-four pounds in weight.

This case is presented here this evening for the purpose of demonstrating to you what may be accomplished by surgery even in cases of carcinoma of the stomach which have advanced to the point of tumor formation. Unfortunately however this is not the usual case, for in our experience we rarely have the opportunity of doing more than an exploratory operation, or at best some palliative one for the relief of pyloric obstruction in these cases, for the reason that we find when they do come to operation that the disease is so far advanced as to make its removal impossible.

The X-ray plates of this man's stomach, before and after the operation will be passed around for your inspection. The second plate taken after operation shows plainly the remaining portion of the stomach or the cardiac end, with the gastro-enterostomy.

The X-ray report after operation is as follows: "The stomach as visualized by a bismuth meal shows only the cardiac portion, and from there the bismuth is seen flowing freely into and throughout the small intestine, without any obstruction.

"Three hours after the bismuth meal the stomach has completely emptied itself, and the bismuth is found in the small intestine and caecum."

It is too early to report this man as permanently cured. I shall therefore follow the case and will be glad to report on his condition at some later meeting.

The mortality from pyloric resection in cases of gastric carcinoma in the hands of the best operators is about eight per cent; and the mortality from medical treatment is one hundred per cent. It is therefore apparent that surgery offers the best chance for these cases.

What we need therefore is early diagnosis. It is doubtful however even with X-rays and laboratory methods if it is possible to make a diagnosis in many of these cases early enough to render a cure possible by surgery. It behooves the internists to ask for consultation particularly in all cases in which there is evidence of food retention or tumor. Not losing sight of the fact that a tumor is no longer considered as a hopeless condition or that the patient has passed beyond the stage of possible surgical relief or even cure.

It is a notorious fact that patients with carcinoma of the stomach in its advanced stages when they are suffering from starvation and cachexia, are very poor surgical risks, in that they have very little resisting powers, and that their wounds do not heal well, and it is for this reason that we are anxious to get them as early as possible, if we are expected to do the most good.

Without for a moment minimising the value of laboratory and X-ray diagnosis I frequently feel that much valuable time is lost in this way when the question could be immediately settled by a three-inch exploratory incision, which even if the findings are negative can do the patient no harm and may be productive of much good and I can assure you there will be no hesitation on our part to do this in proper cases.

GASTRIC, DUODENAL AND JEJUNAL ULCERS

Presentation of cases representing various types and the methods adopted for cure. Acute perforating Gastric Ulcer

Case 1. C. R., male, age, 44 years. This patient whom I wish to present has been known to the writer for the past twelve years. Seven years ago we operated upon him for acute appendicitis. For the past ten years he has complained of what he calls indigestion, his chief complaint being pain after eating, this pain which he described as burning in character usually came on about four o'clock in the afternoon and was invariably relieved by taking food or some alkaline powder which he usually carried with him. He never vomited, but suffered from time to time with belching of gas and eructations of sour, and bitter material. He has had quite long periods during which he thought himself well. He has not varied much in weight, and with the exception of the stomach trouble his general health has been good. There has been no history of hemorrhage either from the stomach or bowel.

The above symptoms appeared regularly from day to day and were always relieved by food and anti-acid remedies, but not to the same extent recently as before, so that he has learned to be more careful with his diet.

With such a history it was apparent that this patient was suffering from an ulcer very near the pylorus or in the duodenum and he had been advised to have an operation, which he had about decided to have done, when suddenly at the beginning of a meal he was taken with a sharp pain in the region of the stomach and fell to the floor.

He was immediately removed to the hospital and upon examination was found to present all the symptoms of a perforated ulcer.

He was operated on about three hours after the accident when it was found that he had a perforated ulcer near the pylorus on the anterior surface. This was closed and the sutures reinforced with an omental graft and a posterior gastro-enterostomy done at the same time. We were able to do the secondary operation in this case because the patient was in good condition and the case had been taken early so that there was probably little if any infection present.

He made an excellent recovery from this operation and is now about one year later absolutely free from his stomach symptoms. This may be taken as a good example for an ulcer history. It cannot

be inferred however from this that chronic indigestion means ulcer in every case for the reason that it is more or less typical of gall-bladder disease, appendicitis and cancer of the stomach. Nor should we lose sight of the indigestion caused by strictly medical conditions, such as tuberculosis, disease of the kidneys, and certain forms of anaemia, for it is not at all infrequent for patients with these conditions to seek aid for indigestion alone whereas the stomach symptoms are only secondary to other and more important trouble.

GASTRIC ULCER

Presentation of patient. Excision with recurrence of symptoms. Two years after first operation gastro-enterostomy followed by complete relief.

Case 6. This patient, Mr. A. B., 52 years of age, came to me first two years ago. His chief complaint at that time being stomach trouble which began suddenly two weeks before, apparently induced by drinking a glass of beer. Previous to this time patient had had no stomach symptoms whatever. At that time he developed a pain in the stomach which was more or less continuous, but much worse about three-quarters of an hour after eating. He did not vomit and there was no history of hemorrhage.

Upon admission this patient was unable to stand straight on account of pain in the epigastrium, and examination showed an extremely tender point just below and to the right of the ensiform. His pain was almost unbearable after eating.

X-ray made at this time by Dr. Roberts showed distinctly the crater of an ulcer on the lesser curvature of the stomach which was apparently about to perforate.

The patient was operated upon at that time and the ulcer which was found on the lesser curvature of the stomach was excised. There was numerous and dense adhesions between the stomach and the gall-bladder showing that he suffered from a localized peritonitis due to the irritation of the ulcer. This was rather a severe and difficult operation, and as the pylorus was not encroached upon sufficiently to diminish its lumen, it was thought best not to do a gastro-enterostomy at that time.

He recovered promptly from this operation and was fairly well for some time, but always complained more or less of gas. Later he began to have pain after eating, and at night, with occasional attacks of vomiting. Recently the pain had become so severe as to require morphia to give temporary relief.

He was admitted in this condition on September 29th, 1918, and operated on the following day, when the following condition was disclosed.

There was dense adhesions between the site of the previous operation and the under side of the liver and gall bladder. Examination of the scar in the stomach showed a recurrence of the ulcer which was very much smaller than the previous one.

The adhesions were separated and the denuded surfaces covered as well as possible to prevent further trouble of this kind. A posterior no-loop gastro-enterostomy was done.

Patient made an uninterrupted recovery from this operation and is now free from stomach symptoms of any kind, and has gained about twenty pounds.

DUODENAL ULCER, PYLORIC OBSTRUCTION

Dilated Stomach. Healed gastric ulcer

Case 4. W. P., Painter, age, 48 years. This patient has suffered from chronic stomach trouble for twelve years. Up to about two years ago he suffered from pain and vomiting about two hours after eating. His pain was always relieved by taking food, bicarbonate of soda, and vomiting. Pressure on the stomach also afforded some relief. Recently the vomiting has not occurred so frequently coming on at intervals of two or three days, and the vomited material frequently contained food eaten some days before. His chief complaint on entering the hospital was vomiting, pain, and loss of weight; about thirty pounds in the last three months.

Physical examination in this case showed a point of tenderness in the region of the pylorus, with considerable loss of flesh and general weakness probably due to starvation.

The x-ray report by Dr. Eastmond was as follows: "With the patient standing the greater curvature of the bismuth filled stomach is seen to be about four inches below the umbilicus.

"The stomach is very markedly dilated. Peristalsis is seen to be unusually excessive and the bismuth meal gravitates into the dependent portion of the organ.

"With the patient prone the stomach rises almost to the umbilical level. Paristalsis varies markedly in degree from time to time at times it is practically absent while at other times it is excessive. A small quantity of bismuth is observed in the cap which however is irregular in form.

"Six hours after the bismuth meal there is a very large residue in the stomach.

A study of the X-ray plates justifies the diagnosis of pyloric obstruction but I am unable to determine the nature of the lesion."

This patient was operated upon in December, 1916, when the following conditions were disclosed: There was found a duodenal ulcer about one inch beyond the pylorus which was causing the obstruction. In addition to this there was found the scar of a healed gastric ulcer on the lesser curvature of the stomach, and some adhesions about the pylorus.

A posterior no loop operation was done, and patient made a smooth recovery leaving the hospital at the end of two weeks. He has had no return of his symptoms up to this time.

I had expected to present this man in person but unfortunately I am unable to do so.

PYLORIC ULCER EXTENDING INTO THE DUODENUM

Old Perforation. Gastro-enterostomy

Case 5. J. V. D., Druggist, age, 66 years. This patient's previous history is unimportant. His present illness dates back about four years, when he began to suffer from pain in the epigastric region, the location of this is indicated by the patient by the tips of two fingers. This pain has been present more or less severe since the onset and radiated toward the shoulders. It was not relieved by food or medicine, but generally disappeared when patient was in the recum-

bent position. There was always a feeling of soreness in the upper abdomen.

During all this time patient has vomited occasionally but without relief from the pain, he has also been troubled with gas.

Appetite good until four months ago, since then very poor. There has been no blood in the vomitus, or stools. Patient has lost 35 pounds in four months.

Examination showed marked tenderness and some rigidity in the epigastric region, there was no masses present.

The X-ray findings as reported by Dr. Wallace, revealed a large stomach moderately prolapsed. A considerable portion of the bis-muth meal remains in the stomach at the end of six and a half hours.

Stomach analysis showed hyperacidity but no blood or other pathological material.

This patient was operated upon in March, 1917. At operation the pylorus and first portion of the duodenum was found involved in a dense mass of adhesions, forming a tumor about the size of a lemon. This mass was firmly adherent to the under side of the liver and gall-bladder. In separating these adhesions, a small opening was exposed in the pylorus, evidently the seat of an old perforation which had been sealed over. This opening was closed and the area covered with omental grafts as far as possible to prevent further adhesions to the liver.

A no-loop posterior gastro-enterostomy was then done and patient made a good recovery. Under date of December 27th, 1918, patient reports that he is enjoying the best of health, stronger than he has been for years. The digestive organs are in fine condition, and he is able to eat most anything.

Under date of March 20th, 1919, patient reports that he is still enjoying excellent health.

It would appear in this case that this patient had had an acute perforation which had been immediately sealed over, resulting in the formation of dense adhesions between the liver and stomach and the inflammatory mass above described. This would account for the irregularity of symptoms in the case. Doubtless the almost constant pain from which he suffered was caused by the dragging of these adhesions. The fact that he was relieved only by the recumbent position would still further tend to bear out this view.

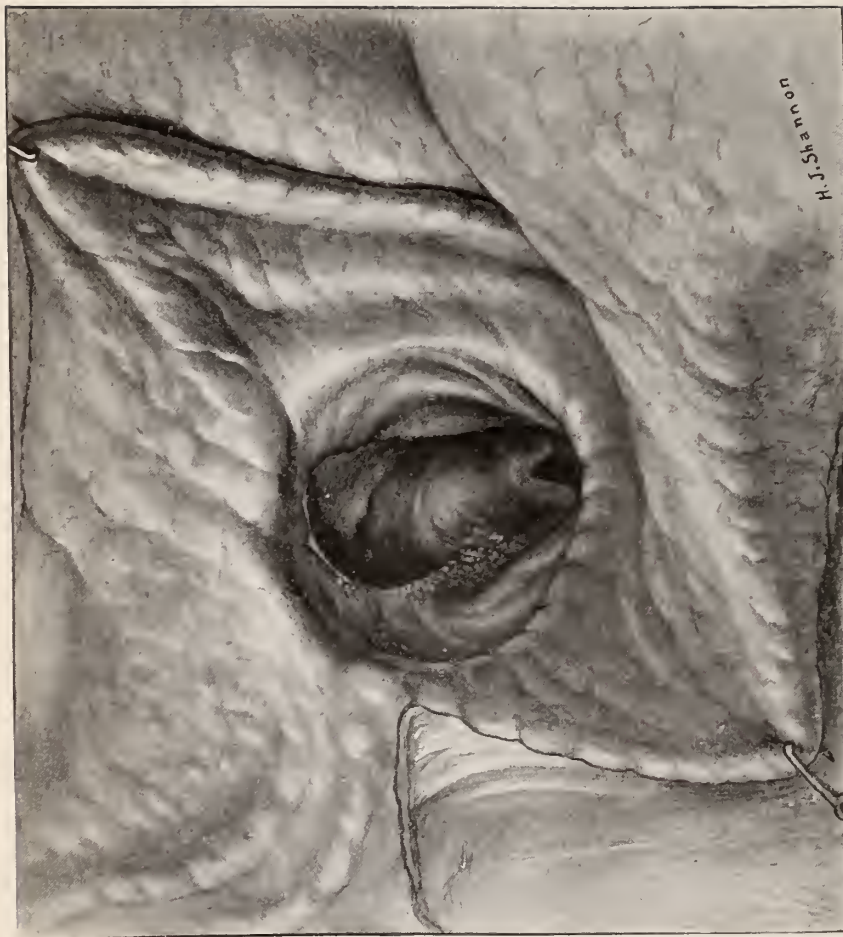
RECURRENT GASTRIC ULCER AFTER CAUTERY OPERATION

Case 2. F. K. Female, age 48 years.

This patient was operated about two years ago by another surgeon for a gastric ulcer of the lesser curvature. The cautery operation as described by Balfour was done at that time. She made a good recovery from this operation and as quite relieved of her symptoms for a time.

Last June she began to have pain in the region of the gall-bladder which radiated upward to the angle of the scapula, and right shoulder. These attacks came on frequently. During the three weeks before entering the hospital, they were very severe and patient was confined to her bed. She also vomited during the attacks sometimes with slight traces of blood in the vomited material.

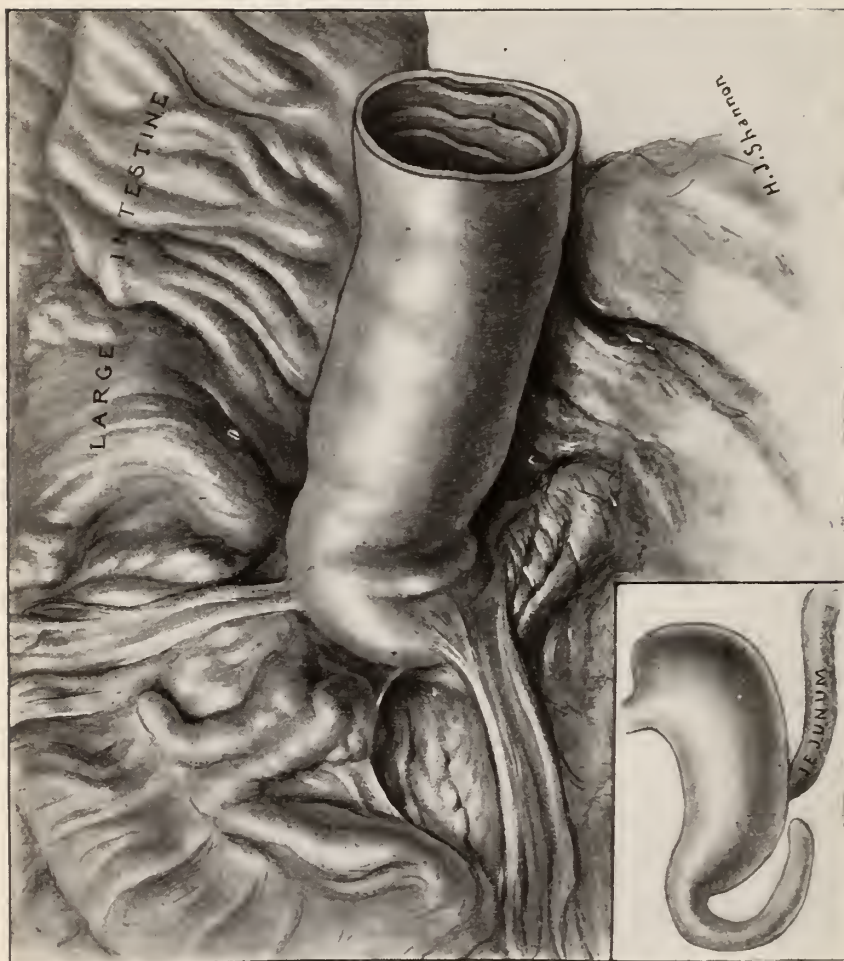
With the above history it was thought that patient was suffering from trouble in the gall-bladder, with a possible recurrence of her old trouble.



Gastro-jejunal ulcer following gastroenterostomy. Six years before, viewed from the gastric side.



Anastomosis viewed from the jejunal side, showing fistula leading into the anastomosis from the large intestine.



Gastro-enterostomy viewed from below.

She was operated on November 3rd, 1918. The gall-bladder was found distended and the seat of a chronic inflammation. It was removed and the ducts examined for stones but none were found.

Examination of the site of the old ulcer showed that there had been a recurrence of the ulcer though not apparently to the same extent as before the previous operation.

A gastro-enterostomy was done and patient again made a good recovery from the operation. Her symptoms did not immediately disappear after this operation and she required considerable attention from her family physician, Dr. Marsh, including stomach washing. She gradually improved however and at the present time is enjoying good health and taking a generous diet. Dr. Marsh reports that she has gained somewhat in weight.

GASTRO-JEJUNAL ULCER

Following Gastro-Enterostomy six years ago

Case 3. C. V. male. The patient from whom this specimen was removed was an Italian laborer 53 years of age. About six years ago he had a gastro-enterostomy done at another hospital for ulcer. Following this operation he was quite well until the onset of his present trouble which began on September 18th, 1918, when he was taken suddenly with a dizzy spell and weakness. At the same time he suffered severe pain in the region of the stomach which was more or less continuous until October when he had a similar attack. At this time he vomited blood and had bloody stools. Because of pain caused by eating which was not relieved by anything except morphine, patient had lost considerable weight and strength.

We felt in this case that we had a gastro-jejunal ulcer to deal with, and although the patient was in poor condition it seemed best to make an exploratory operation with the hope of relieving the condition if possible.

At operation gastro-jejunal ulcer was found at the site of the old anastomosis, the condition being most marked on the stomach side. The complications were so great that it was deemed impossible to remove it and save the patient in his weakened condition. An opening was made through the anterior wall of the stomach to determine if the ulcer could be removed in that way but that was also found to be impossible.

The wounds were closed and patient returned to bed. He died from exhaustion within the next three or four days.

The condition as found is depicted in the illustrations which I have had made.

Gastro-jejunal ulcer following gastro-enterostomy is comparatively rare, Moynihan writing in 1915 reports but three cases as having come under his care. It is a very serious complication and usually a most difficult one to relieve.

The cause of these ulcers is not yet clear, perhaps the most common theory expressed is that they are due to a non-absorbable suture which is frequently used in the posterior layer in doing the original operation. In this case however there was no evidence of silk or other foreign material which might have produced the irritation. Recently we have been using chromic gut where before we used linen in these cases when making a gastro-enterostomy.

It is interesting to note that there had developed a fistula from the transverse colon into the anastomotic opening which probably accounts for the ulcer in this case. A pin has been passed through this fistula in order that you may be able to see its location.

This is the first case of this kind that we have seen and it is to be regretted that patient's condition was such as to forbid any radical attempts to relieve him. The original operation had been a posterior no loop one to which the transverse colon had become firmly adherent. This meant probably multiple resections with anastomoses all of which were out of the question in this case.

CASE PRESENTED BY DR. HOWARD T. LANGWORTHY.

Brooklyn, New York.

Ankylosis of the Jaw.

CASE REPORT: M. E. Hospital; Hosp. No. 34439. E. C., female, married, age 41. Admitted: Feb. 10, 1919. Disc. Feb. 28, 1919. Referred by Dr. C. L. Stone.

History: Duration, nine years. Perfectly well up to nine years ago when patient had an abortion (at two months) followed by peritonitis. Confined to bed three months. During her convalescence noticed that mouth could be opened but a short distance, which condition persists to date. During the past three years she has suffered a great deal of pain in both Temporomaxillary joints, most severe on the right side. Headaches and pains in neck frequently. Diet restricted to soft food. Eight years ago, under aenesthesia, the mouth was stretched open without relief.

Physical Examination: Local; Findings normal except patient can open mouth but five-eighths of an inch. No retraction of chin or displacement of lower jaw to either side when the mouth is open. Roentgenograms showed an apparent ankylosis on both sides at the inferior maxillary articulation.

Diagnosis: Bilateral Bony Ankylosis.

Operation: Feb. 13, 1919. Arthroplasty Right Temporomaxillary Joint. A curved incision about two inches long; the anterior arm one-half inch above and parallel to the zygoma and the posterior arm down just in front of the ear to the level of the floor of the external auditory canal. As shown in illustration (Fig. 1). Skin flap dissected down to expose the zygoma. An incision through the temporal fascia exposing the zygoma and joint region. The lower portion of the zygoma was removed to expose the condyle. The condyle was removed together with sufficient bone so that a space at least one-half inch existed between the neck of the ramus and the glenoid fossa. Skin closed with interrupted linen sutures. A small rubber tissue drain placed at lower angle of wound.

Result: No improvement in ability to open mouth.

Second Operation: Feb. 20, 1919. Arthroplasty left side following the procedure used in the first operation.

Post Operative Treatment: No forcible methods used. Daily exercises by placing different sizes of gauze bandages in mouth.

Condition on discharge: Feb. 28, 1919. Patient able to open mouth freely one and one-quarter inches, without pain (Fig. 2). Incisions healed by primary union leaving an almost un-noticeable scar (Fig. 3).



Fig. 1.

Iodinized scar to
show line of
incision.



Fig. 2.

Final result from
orthroplasty.



Fig. 3.

Actual scar from
operation.

CASES PRESENTED BY DR. HENRY F. GRAHAM

Brooklyn, New York.

1. Intussusception Complicated by Acidosis.

2. Phases of Gall Stone Surgery.

INTUSSUSCEPTION is one of the most spectacular of the tragedies of early life. It has a peculiar interest of its own.

This baby, E. M., aged eight months, is a patient of Dr. John Gildersleeve.

The family history is negative.

Past History. Has had frequent attacks of colic.

Present Illness. On the evening of March 18th gave several sharp cries as though pricked by a pin. The next morning he refused his bottle, began to vomit and continued to do so until late in the afternoon. An enema given at 8 a. m. gave a normal fecal return. Later he was seen by Dr. Gildersleeve who ordered another enema which was returned with worm like strings of mucus and blood. A third enema brought bright red blood. He made a diagnosis of Intussusception and asked me to see the baby.

I found an alert, well nourished child, seemingly not very sick, with a temperature of 101 and 2-10ths, respirations 28 and pulse 120.

There was an indefinite resistance and sense of mass in the right upper quadrant and slight abdominal distension.

With such a history of bloody stools in an infant without diarrhoea the diagnosis seemed certain. Attempts at reduction by enema or colonic distention are no longer justifiable hence immediate operation was advised.

Operation. Upper right rectus incision. Ileum found invaginated into the colon through the ileo-caecal valve, and this entire mass telescoped up into the ascending colon—an ileo-caecal intussusception. Normal conditions were easily reproduced by traction. The terminal ileum was somewhat thickened and red where it had resided within the ileo-caecal valve. The valve was narrowed by two sutures inserted sideways, and the ileum pleated longitudinally for an inch to stiffen its wall. The caecum was attached to the parietal wall by a single stitch to make an artificial fusion for as Moynihan says, "It is the undue mobility of the caecum and ascending colon which permits the occurrence of the invagination."

The baby was put on a weak formula the next morning. 24 hours after operation he was very ill. The temperature was 104 and 4-10ths, pulse 160, respirations 50. The neck was rigid and the head was thrown back. He had a dry tongue, pinched face, contracted pupils, eyes that were sunken and rolled upward, and lips slightly blue. A diagnosis of acidosis was made and a hypodermoclysis was given. The rectum was irrigated with 2% sodium bicarbonate solution and sugar of milk was added to the formula. The following day acetone was found in the urine. There was no diacetic acid but nearly 24 hours had elapsed since the alkaline treatment was started before the urine was secured. His bowels began to move and we gave him gruel and crackers as curds were present in the stools. Later steady improvement. Home on the tenth day. No acetone on discharge.

I wish to present two cases here to-night illustrating two of the many interesting phases of gall bladder disease.



Radiograph of Gall Stone by Dr. J. C. Williams.
Slightly accentuated for reproduction.

First: The Value of the X-Ray in the Diagnosis of Gall Stones.

You are all familiar with the fact that most gall stones do not interfere with the passage of X-Rays and hence do not give an outline or shadow on the exposed plate. There are some stones, however, that, in the course of time, develop an outside coat of calcium over the original soft center. These give a shadow like a geometrical figure—a circle, hexagon, etc.

The difficulties to be overcome by the radiographer in this field are enormous. The patients are usually obese and the gall bladder and ducts are deeply placed beneath the ribs. Gas and feces in the intestines interfere. These must first be eliminated. The depth must be lessened by compression. The rays must be so directed as to avoid the ribs and exposures must be made on the back and face to secure the point nearest to the stone. The exposure must be very accurately timed for an over exposure will destroy the shadow.

Mr. B. G. W., a patient of Dr. William Steele of Baldwin, walked into my office one afternoon and handed to me the splendid prints that I shall now pass around. They were made by Dr. John G. Williams and, as you see, beautifully show a single large ring shaped shadow of a gall stone.

His history was briefly as follows:

Chief Complaints: Weakness on exertion and inability to stand hard work for the past 20 years.

Family History: Mother died of Bright's disease.

Past History: Diseases of childhood: measles, chicken pox, mumps, and typhoid fever at 8 years of age. 8 to 10 years ago he suffered from a sour stomach, had a bad attack of jaundice, and

also a bad nervous breakdown. His bowels are usually regular and his appetite good.

Present Illness: Just before Christmas, 1918, he had a bad attack of hiccoughs, an acid stomach with faintness and dizziness. For twelve hours he suffered with a stabbing constant pain which was most intense in the pit of the stomach and radiated around to the back. This pain then disappeared and was not repeated. There was no flatulency. Such a sour stomach has been rare with him. The bowels remained regular. There was a little dyspnoea.

Physical Examination: Man of large frame, exceedingly nervous, slight puffiness beneath the eyes. Reaction of pupils to light and accommodation normal. No jaundice. Heart and lungs normal. Knee jerks present. Abdomen soft and not distended. No masses or tenderness.

Operation: Cholecystectomy. A single large white stone with a rough exterior was removed from the gall bladder at the close of the operation. Convalescence was smooth. The highest post-operative temperature recorded was 100 on a single day. Home on the 18th day. We have been especially impressed with the great diminution in the amount of pain that the patient suffers after a cholecystectomy as compared with the drainage operations which were formerly done.

The history and physical examination in this case were a little vague and indecisive. The diagnosis was made a positive one by the X-Ray.

The second case illustrates one of the difficulties sometimes found in making a diagnosis even after the abdomen has been opened.

Mrs. J. Aged 32 years. Patient of Dr. W. L. Stone.

Chief Complaint, Knife like pains from the umbilicus upward into the left upper quadrant.

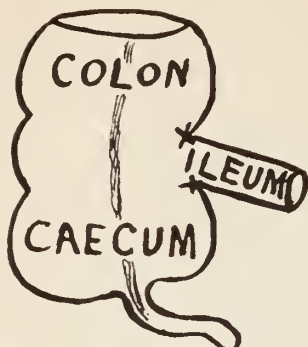
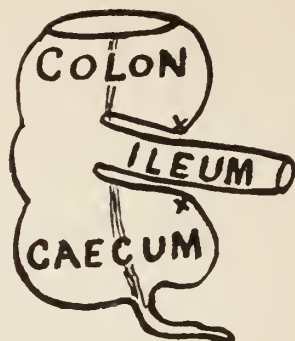
Family History, Negative.

Previous History, Diphtheria 8 years ago. No other acute illnesses. No operations. Has lost considerable weight in the past three months. Menstruation normal. Appetite fair. Bowels costive. Has had 7 children. No miscarriages. Labors normal.

Present Illness, Dates back to the birth of her last child one year ago. There have been many attacks of severe pain starting around the navel and spreading upward and to the left. This pain has been intermittent and cutting with a constant dull ache between the sharp spasms. It has also been felt across the small of the back. There has been none in the right shoulder. She has never been jaundiced. The urine has been red since the onset of the present attack. Stools have had a normal color. Has been very costive. Has been nauseated but has vomited only once. Hypodermics of morphine have been necessary to control the pain.

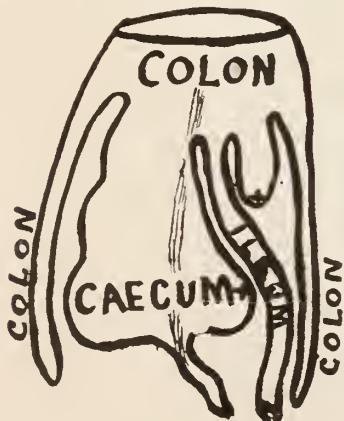
Physical Examination, Slightly obese, dark complexion, no jaundice. Pupils normal. Tongue dry and white. Sibilant and sonorous rales throughout both lungs but especially on the left side. Heart normal. Abdomen somewhat distended. Very tender, especially in the epigastrium. An indefinite resistance was felt in the gall bladder region which seemed to be the edge of the right rectus muscle.

Dr. Stone believed that the trouble was due to gall stones. I felt that an ulcer of the duodenum or stomach should also be considered because of the epigastric pain and tenderness.

I**II**

Operation. Right rectus incision over the gall bladder which was found to be tense and could not be emptied by pressure. Its appearance, however, was normal and no stones could be felt so I temporarily passed it by and examined the stomach, duodenum, pancreas and colon. These were all normal. A second and more careful palpation of the cystic duct revealed four or five small irregularities the size of the head of a pin. The gall bladder was removed. Later when it was opened we found, much to our surprise, 35 small stones varying from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in diameter. A small tube was anchored to the cystic duct and the abdomen closed. Primary union of the wound. Uneventful recovery. Home on the 12th day.

Dr. Russell Fowler has suggested the advisability of aspiration of the gall bladder in these doubtful cases and I believe that occasionally it will prove to be a useful procedure for it is the tenseness and lack of compressibility that render it impossible to feel the stones in such a case.

III

I NORMAL
II ILEO-COLIC INTUSSUSCEPTION
III ILEO-CAECAL INTUSSUSCEPTION
A LATER STAGE OF II
IN THIS CASE.

CASES PRESENTED BY O. PAUL HUMPHSTONE, M.D.

Brooklyn, New York.

Prevention of Eclampsia.

THE Department of Obstetrics, desires to present for your consideration two cases of aberrated body chemistry during the last months of pregnancy; which will refresh your minds concerning certain definite indications, for observations to be made in antepartum examinations, leading to the prevention of Eclampsia.

Mrs. S. M., age 20, Para. I.

Chief complaint: Pregnancy. Family history: Negative.

Past history: Negative, except for diseases of childhood.

Menstrual history: Puberty at 12; regular; 7 days; some menstrual pain; normal flow. After marriage, severe. Last period June 24, 1918. Due April 1, 1919.

Marital: No changes, no miscarriages. No pelvic diseases.

Present illness: Negative except for slight edema of legs and ankles. No headache or eye symptoms. Bowels regular, bladder negative. Came to Obstetric Clinic first time March 5, 1919. Eight months pregnant.

Examination: General condition good, heart, systolic bow at Aortic area. Lungs, O. K. Moderate edema of both lower extremities. No headache or eye symptoms. Fundus 28, C. M. Pelvic measurements 24, 39, 21½. Pelvis, O. K. Cervix high, admits tip finger. Vagina, small and tight. Blood pressure, 145-100. Urine, faint trace of albumin.

Second visit to Clinic March 12, 1919. Blood pressure 180-110. Urine, trace of albumin.

Third visit to Clinic March 19, 1919. Blood pressure 155-110. Urine, heavy cloud albumin.

Fourth visit to Clinic March 21, 1919. Blood pressure 180-110. Advised to come in.

Patient admitted 8:40, March 21, 1919.

Examination on admission, 8:40 p. m. Heart, systolic bow at aortic area, good compensation. Lungs, O. K. Blood pressure 180-110. F. H. L. L. Q., 156 regular. Rectal examination, head low in pelvis, cervix soft, two fingers dilated. Not in labor, 12:30 a. m. Blood pressure 155-180.

Treatment: Routine for threatened Eclampsia.

History of labor: One a. m. fell into labor, labor progressed normally, delivered in six hours, by low forceps. Slight perineal tear which was repaired by few chromic No. 2 sutures. Four hours after delivery, blood pressure 170-110. Veratrum min. 2 Q 4 H for two doses brought blood pressure to 150-100.

Mrs. G. T. Age 22. Para. I.

Chief complaint: Pregnancy with marked edema of vulva and extremities.

Family history: Negative, for T. B. Cancer and nephritis.

Past history: Measles as a child, always well and healthy.

Menstrual history: Puberty at 14, regular 4-6 days, some premenstrual pain and lumbo-sacral backache, good flow. After marriage, same. Last period, June 25, 1918. Due to be confined April 2, 1919.

Marital history: Married two years. No changes. No miscarriages. Husband in good health.

Present illness: Patient had nausea and vomiting for first four months of pregnancy. Lost about 15-18 pounds during this period. In early part of August patient became jaundiced, vomited great deal, was in bed two weeks. Vomiting continued until about Sept. 25, 1918, after which she felt good, gained in weight and strength. On Feb. 1, 1919, patient noticed puffiness under eyes upon rising in a.m., a week later she noticed considerable swelling of feet and hands and vulva with occasional headache. Bowels regular At this time, Feb. 1, 1919, patient came to Obstetric Clinic.

Examination at this time: Feb. 1, 1919. Heart and lungs negative, uterine contraction present, some oedema of extremities, vertex presentation, fetal heart in L. L. Q., 144. Pelvic measurements, 24½, 28, 19. Vagina roomy, secretion moderate, cervix points post and external os. admits one finger. Blood pressure 130-80. Urine faint trace of albumin, no casts.

March 3, 1919. Fetal heart L. L. Q., 144. Some oedema of lower extremities, blood pressure 145-95. Urine heavy cloud albumin, no casts. Associate symptoms: shortness of breath on exertion, frequency of urination, urine concentrated, no burning.

Admitted to M. E. H. March 18, 1919, at 7 p. m. Not in labor. Heart and lungs O. K. Marked oedema of face, and hands, legs, feet, and vulva. Labia markedly swollen and painful, could not close thighs, no headache or eye symptoms, blood pressure 188-100. Urine, heavy cloud albumin, red blood cells, granular casts.

Treatment: Put to bed, milk diet, water at lib. Hot pack, 20 minutes on 3 consecutive days, with good sweats after each pack. Chloral. Grs. v. T. I. D. Soda Bicarb. Grs. xx. Colonic irrigations, Q 6 H.

March, 20, blood pressure 185-110.

March, 20, blood pressure 195-120, 9 a. m. Veratrum viridie, min. 2. Q 2 H. Blood pressure 180-110, 1 p. m. Blood pressure 173-103, 3 p. m. Blood pressure 142-80, 5 p. m. Veratrum discontinued. Blood pressure 170-105, 9:30 p. m. Veratrum repeated M. 11. Once. Blood pressure 170-110, 12:30 a. m. Blood pressure 145-70, 4:30 a. m. Delivered 5:01 a. m. Normal labor of twelve hours, placenta delivered spontaneously in 10 min. A half hour after delivery, blood pressure 155-95. Patient condition excellent veratrum M. 11 Q 4 H, for 2 doses, blood pressure 170-110, 10 a. m. Oedema has gradually subsided and patient's condition O. K. Blood pressure 168-110.

Here then are two women: One of whom presented not a single subjective symptom, one with no other symptom than the discomfort of an edematous vulva, but both of them showing upon repeated examinations the most important of any physical findings pointing to the advent of tragic symptoms, namely a rising blood pressure. But now happily convalescent with live children; out of the danger they were headed for; by the timely recognition of the necessity for removing the fundamental cause for their poisoning, the pregnancy itself.

It is a most striking fact that there is a time in the development of every toxemia of the latter months of pregnancy which if recognized and suitable timely action taken, we can prevent the outburst

of Eclampsia with its often fatal cerebral hemorrhage and hepatic and renal degeneration.

Our purpose in showing these cases is to urge upon those of you who practice obstetrics a more regular though very simple antepartum observation of pregnant women.

We instruct the gravid women in the antepartum clinic of the hospital to come to us once a month up to the eighth month, and then every two weeks.

We ask them four routine questions.

Have you headache?

Have you vomited or been nauseated?

Has your urine diminished in daily amount?

Are your bowels acting every day?

We make four routine observations.

Measure the height of the fundus for comparative development of the fetal ovoid, listen to the fetal heart, take the blood pressure, examine the urine for albumin.

If they present any of these symptoms, or if the blood pressure is over 150 they are given diet directions; and return every second day for observation till improved, and then once a week.

If the blood pressure stays 150 or goes over it they are put to bed in the hospital, with strict diet and medication, and if it continues to go up in spite of this treatment we bring on labor regardless of the urinary findings. It now being recognized that the blood pressure is by far the most important and earliest indicator of trouble of this nature. We now know that we must not wait for alarming symptoms or we may be too late.

CASE PRESENTED BY DR. LE GRAND KERR.

Brooklyn, New York.

Abscess of the Lung.

THIS girl, aged nine, was admitted March 9th, with cough, pain in the chest and fever as the chief complaints but no definite diagnosis. The family history is negative. The previous history is measles, mumps and pneumonia in 1917; influenza in October, 1918; adenoids and tonsils removed in January, 1919. The present history is of frequent "colds" always with pain in lower left chest since October, 1918, and progressive emaciation and loss of strength. Temperature for past three weeks has fluctuated between normal and 104; cough very troublesome; appetite poor and slight diarrhea. The physical examination revealed a very much weakened, anemic, emaciated, irritable child with every evidence of a prolonged illness. T. P. R. 104-135-41. Heart negative for organic lesions. Right lung is normal. Left lung; pronounced dullness (almost flatness) over a circular area (about 2½ inches in diameter) just below angle of scapula and diminished resonance over lower lobe. Breath and voice sounds diminished and coarse and medium crepitant rales over the whole lower lobe. Over the circular area in addition are heard moist and bubbling rales, notably on deep inspiration. Abdomen negative. Day following admission; Leucocytosis 38,900-86% Polymorph. Slight last degree, because the man who attempts it is bound

albuminuria. Radiograph report shows circular area in centre of lower left lobe (corresponding in position and size to area described) and suggested as possible pneumothorax. Sputum shows pneumococcus predominating.

Toward midnight on day after admission, large quantities of pus and mucus were expectorated. The odor was extremely fetid. The following day this continued and at night the T. P. R. were 100,2-110-30. Third day after admission; T.P.R. 98,8-100-25. From this on there was nothing unusual about either T. P. or R. After the fifth day, the cough progressively diminished. The general condition is rapidly improving. The circular area is becoming smaller from day to day; the rales are becoming more scattered and fewer. Blood examination on March 17th, shows Erythrocytes 5,876,000; Hemoglobin 75%; Leucocytes 26,350; Polymorph. 73%.

There are two very interesting features in this case; the difficulties of diagnosis and the recovery through rupture.

In diagnosis it is necessary to differentiate between abscess, encysted empyema and interlobar empyema and this is not always possible, as under each condition there is pent-up pus, lying within the visceral pleura in abscess and in empyema without. The normal position of the heart in this girl was against a diagnosis of empyema. My assistant in the service, Dr. Spingarn, instituted at once the Clark position and it was this, plus keeping the child out-of-doors and forcing an abundance of food to the digestive capacity that maintained the case through the period of spontaneous rupture and has led to the progressing and safe condition in which we present her to you this evening. No maintained medication was used; only a few doses of medication for particular symptoms. Abscess of the lung is rare but I have always felt that while a child's nutrition could be maintained, surgical interference might well be postponed. In three instances this has proven to be the right course. This child adds to that belief.

Note: On April 12th, the case reported above was discharged from the Hospital, cured, and gaining several ounces daily.

OBSERVATIONS ON THE INFLUENZA PANDEMIC OF 1918.

Frank Bethel Cross, M. D.

Brooklyn, New York.

THE professional work of the medical service of the Methodist Episcopal Hospital in the autumn of 1918 was dominated by the plague of influenza and constituted an extraordinary experience for those of us on duty, to whom the similar epidemic of 1890 was only a story related by old professors. There was splendid cooperation on the part of the management; nothing was too great a sacrifice, even unto discharging surgical cases and turning over the Halls Building, our large private patients' pavilion, to the city for emergency medical ad-

missions during the four weeks' period of greatest incidence of the disease. Within the brief time allotted me it is not possible to consider all the varied clinical features of influenza, but I would like to call your attention to those which impressed us most as the cases passed under our observation.

Our especial problem early was to "find ourselves" in relation to the disease, to identify its earliest manifestations and gain a familiarity with its changing phases. The *incubation period* appeared to be from 36 to 48 hours, occasionally one day only.

The *onset* was abrupt with chilliness and prompt elevation of temperature which varied from 100° to 105°, according as the case was mild, moderate or severe in intensity. Some children showed a laryngeal onset, simulating croup. A tendency to hemorrhage from the nose, lungs, stomach and uterus suggested that a hemolytic agent might be concerned in the etiology and we were not surprised that often our pathologist reported Streptococcus Hemolyticus. A single free hemorrhage from the lungs early in the disease was not a bad prognostic omen, despite its fear-producing character, as nearly all cases showing this recovered. Pain was variable; headache, lumbar aching and muscular heaviness were complained of frequently. Abdominal pain due to hemorrhage into the sheath of the rectus abdominis was observed in an occasional instance.

The most constant physical finding was fine and coarse rales over the lungs, usually posteriorly, and, with the ever-present cough considerable congestion of the pharyngeal tissues. A severe tracheitis was often present. The *identification of the causative factor* was most unsatisfactory. The organism most frequently isolated from the sputum was the Streptococcus Hemolyticus. Varied bacteria were found, in one case Bacillus Influenza in pure culture from a pleural exudate.

The *course of the disease* was mild, moderate or severe, and the average duration four days, thus supplementing by one day the descriptive name of "three-day fever" given by Surgeon-General Blue. In three clinical observations that are usually high, low findings were noted: namely, low pulse rate, low blood pressure and low leucocyte count. The bradycardia was extraordinary, especially when following pneumonia. In a few cases a persistent tachycardia was noted.

The *complication of moment was pneumonia*, and this was observed both early and late in the disease. It was usually part of an active bronchitis and partook often of the characteristics of a broncho-pneumonia. Frequently fulminating in type, it then amounted to an acute hemorrhagic pneumonia that killed many times before a classic consolidation could be identified. Often these cases ran their course to a fatal conclusion within 24 to 48 hours. The fleeting or migratory broncho-pneumonia was of milder type and presented a better prognosis. Occasionally a typical lobar pneumonia with high leucocytosis was observed. The most frequent type was a lobular form, which chose a special lobule of the lower lobe nearest the angle of the scapula or one high in the anterior axillary line. In the first days of the epidemic, the physical signs over the lungs did not seem to reveal enough to call pneumonia and so recourse was had to the X-ray. Hidden or masked pneumonia was uniformly discovered, and in consequence a rule for the guidance of our changing interne staff was laid down that any sustained temperature on

the fifth day of any case of influenza was to be considered as due to pneumonia, and the patient treated as a potential pneumonia.

The early cyanosis was looked upon as due to some chemical effect of the toxin of the causative organisms on the blood itself. Pulmonary edema was also considered due to the local effect on the lung parenchyma of the same chemical component, and not as an evidence of failing right heart. The deaths from respiratory paralysis, observed to occur uncannily with strong heart action, were interpreted as further evidence of the curious selective action of the toxin or group of toxins upon the respiratory center. Plural exudate was noted occasionally. There were very few cases of empyema in our series of 215 cases, and no instances of interstitial emphysema. The infrequency of otitis media was noteworthy.

The *prognosis* was always guarded. No case was safe; the most promising dying suddenly after a rapid extension of the lung lesion; the least encouraging sometimes coming through to recovery. I have in mind a case seen with Dr. F. B. Otis: a woman six months pregnant, double pneumonia, marked mitral stenosis, uncountable radial pulse, urgent dyspnea and profound cyanosis: uneventful recovery, delivery at term.

Sequelae have appeared. It has been necessary to study closely the cases suggesting tuberculosis, for in some instances evidences of this disease have appeared; in other cases it has amounted to but a simulation of this infection. Various functional neuroses have developed and a host of influenza patients must now struggle with nervous exhaustion and psychasthenia. We have seen two cases of post-influenzal encephalitis.

Treatment revolved around the principal of conservation of the patient's strength. Those did best who, respecting their disease, went to bed earliest, and this was, in brief, the chief object of the educational campaign conducted by the Department of Health and the leading medical organizations. Every physician was a preacher and teacher on this point! Prompt isolation in bed, but no severe purging, and no drugs to produce profuse sweating, herein differing so much from the treatment of the ordinary bacterial "cold." A soft diet, more generous and more stimulating than the usual fever diet, was urged, even to the point of insistence, because good appetites were almost unknown and anorexias the rule. Water was given freely by mouth, six to eight glasses per day.

The rule was to minimize medication. Aspirin and quinin in small doses added much to the comfort of the patient, but either or both were stopped if there was nausea, sweating or ringing in the ears. For the invariable cough the Elix. Terpin Hydrat and Codein (gr. 1/8 to the drachm) was routine and rarely required reinforcement. The cough was aggravated by too much raw cold air.

Cardiac support was begun early in those cases showing either threats or unmistakable evidences of pneumonia. *Digitalis* was the remedy and the dosage not maximal. We saw no reason for the large drachm doses of the tincture, and accomplished digitalization by more moderate attack. If the cause was immediate, digalen hypodermically was used freely. Camphor in oil and caffenin were adjuvant. One word must be added about *atropine*. Its utility questioned by some, it seemed to me and those associated with me to have a distinct applicability in the profuse exhausting sweats that occasionally marked the onset, in the early stage of the pulmonary

edema and in the hyperidrosis of the severe toxic pneumonias. The dose was small, half the usual size and repeated only by direction of the interne after personal inspection of the patient; no standing orders for atropine were ever written, and we feel certain that in no case was an evil outcome contributed to by its use to the point of vagus-terminal depression.

In *convalescence*, caution in getting the patient out of bed, a tardy recognition of the call of neglected business affairs, and a full dietary schedule were the important factors. The sense of well-being seemed strangely to be the more promptly restored by the free use of the compound elixir of the glycerophosphates.

Prophylaxis, in brief, was isolation. The use of the Department of Health vaccine before onset did not lessen incidence, although it possibly modified the severity of the disease. In therapy, vaccines were not of proven merit. In our hospital experience, the masking of all nurses, internes, attending physicians and visitors appeared to control the epidemic as it swept through the Training School, new cases developing within a few days after the discontinuance of this protective measure.

EMPHYEMA: FAILURE OF THE NEWER TECHNIC.

Roger Durham, M. D.

Brooklyn, New York.

I HAVE selected as a topic of timely interest to present to you tonight the general subject of empyema, and in particular two concrete cases that represent experiences with two of the newer methods of the surgical treatment of this disease. The still prevailing epidemic of influenza with its train of complicating pneumonias and empyemas has presented the surgeons of the country with a wealth of material in this line, and the opportunity to study first hand some of the newer methods of surgical attack, among which are the Walter Reed technique, and the Phillips' apparatus. Both these methods claim as argument in their support: That a minor procedure is substituted for a rather major operation; that the morbidity and mortality is lowered; and that the period of confinement is materially lessened. While our experience has been brief and limited with both these methods, the result of the year's work has tended to emphasize in our minds the value of rib resection after repeated aspirations of the pleural cavity and to bring out some of the weak points in these other methods.

My first case report is that of a little boy 4 years old, referred to me by Dr. Mayes, who had an attack of influenza last October and whose brother died during the same period of broncho-pneumonia at nine months of age. The present attack began two weeks ago, with a single complaint of persistent headache, and symptoms of fever and slight vomiting. The diagnosis was influenza and a complicating broncho-pneumonia. At the end of the first week clear serous fluid was aspirated from the left pleural cavity. On admission to the hospital there were signs of an unresolved pneumonia of the right lower lobe and fluid in the left pleural cavity. This patient

was treated without surgery for another week and then some straw colored fluid was aspirated from the latter side. Six days later more fluid of cloudy nature was again removed by aspiration. About four weeks from the onset of the disease when signs showed an increasing amount of exudate and rising temperature (from 100° to 102°) and pulse up to 130, thirty c. c. was again removed and a Dakin's tube was inserted through a trochar puncture after the Walter Reed method and aspiration was instituted every two hours with the injection of Dakin's solution immediately afterward.

Following this there was improvement for two weeks and then the temperature showed a marked rise from 100° to 106° and pulse from 110 to 160. Examination showed signs of a contracted lung and a larger cavity with a brown fluid discharge, persistent signs of broncho-pneumonia in the opposite lung, and septicemia. A septic rash was present for a few days. At this time or at the sixth week of the disease and the fifteenth day after the insertion of the Dakin tube, a larger drainage tube was placed in the sinus and treatment continued as before. The symptoms continued unabated, together with gastro-intestinal disturbances, and a blood count of 10,500 leukocyte and 82% polynuclears. Urine was negative. The discharge had become of a foul, greenish type with necrotic masses. The little patient was delirious at times. X-ray confirmed the diagnosis.

On the 26th of March and about the eighth week of the disease it seemed wise to obtain better drainage and a resection of the eighth rib was performed under local anaesthesia. Large masses of necrotic lung tissue and foul smelling pus were evacuated. There was no improvement in the general condition, but the sepsis persisted with increasing emaciation, and a continued foul discharge, and on May 3rd, about six weeks after the last operation the patient was removed to his home. His death was reported about two weeks later.

Failure in this case can be ascribed to the nature of the infection, the probable secondary infection, and the inadequate drainage obtained by the Walter Reed technique.

Case 2 is that of a young man of twenty years of age, who was admitted to the hospital from service in the Navy Jan. 23, 1919, and who had been sick for one month with influenza and pneumonia. Examination showed consolidation of left lower lung, a temperature ranging from normal to 100°, pulse about 100, urine normal, leukocytosis of 13,000 and 83% polynuclears, sputum negative and X-ray suggesting consolidation of the lung but no fluid. Repeated examination for two weeks, and one aspiration recorded no fluid and the impression was that of an unresolved pneumonia, but at this time, the temperature ranged higher, 101° to 103°; and the X-ray showed fluid, and on Feb. 10th, the seventh week of the disease five ounces of greenish pus was aspirated from fourth space in the anterior axillary line and four days later the Phillip's apparatus was applied in the 8th space posterior axillary line.

During the following four days 32 ounces of creamy pus drained into the bottle container, and the temperature fell to normal and remained so for ten days. Examination showed lung expansion except for a small area around the trochar. After ten days, however, the negative pressure could not be maintained, due to leakage about the instrument at the point of entrance into the chest, and the apparatus was removed and reapplied.

On the seventeenth day it was permanently removed and six ounces of pus retention aspirated from the cavity, due to the fact that the instrument had been somewhat displaced and the trochar did not reach through the chest wall. A Dakin's tube was inserted and Dakin's solution instilled every two hours after aspiration and later a larger drainage tube was used in the same manner. The cavity measured about six ounces, but the drainage was inadequate, so that on March 14, twenty-eight days after applying the Phillip's apparatus the 8th rib was resected in the posterior axillary line. Two large rubber tube drains were put in place. One week later the cavity held one and one-half ounces. Improvement was gradual and steady and the patient was discharged four weeks after the thoracotomy and eight weeks after the installation of the Phillip's apparatus with a small granulating superficial wound.

While this case does not condemn the Phillip's apparatus as unworkable and a failure, it however serves to show some of its weaknesses, i. e., the difficulty in maintaining an air-tight and continuous suction apparatus in the living human chest.

SYPHILITIC AORTITIS WITH PSEUDOANGINA.

Reported by Hartwig Kandt, M. D.

Brooklyn, New York.

THIS patient entered the Methodist Hospital complaining of deep seated pain in the left chest increased by exertion and with occasional radiation into the left arm. The house officer's history and the analysis of the case follows:

Dr. Ellis' anamnesis.

Chief Complaint: Pain in chest.

Family History: Father dead at 74 years from an accident. Mother alive and well at 84 years. Six brothers and two sisters living and well. Three brothers dead in infancy.

Neg. for chr. family disease. General health has been very good.

Past History: Patient was in this hospital for hemorrhoids fifteen years ago. Hemorrhoidectomy fifteen years ago by Dr. Pilcher. No injuries or other operations.

History of a chancre fifteen years ago. Rheumatism two years ago.

Alcohol: Alcohol pretty freely—whiskey.

Tobacco: Heavy smoker up to last few years.

Otherwise negative.

Present Illness: Illness dates back for 3 months. He thinks it was caused by lifting a heavy weight. At the present time appetite is bad. No headache present. No nausea or vomiting. Bowels irregular. Pain over pericardium present continually. Worse in time of bad weather. Character of pain is sharp and radiates down into muscles of the left arm, which contract. No palpitation. No shortness of breath. No insomnia. Edema of the feet present all the time. No polyuria. Some nocturia. No dysuria.

Nervous system: Says he is very nervous. He has a tingling sensation present in lower extremities.

Physical examination March 18, 1919, by house physician, Dr. Ellis:

General appearance: Plethoric well nourished, nervous adult male. There is ptosis of the upper lid of the left eye present. Pupils are unequal and do not react to light. Throat and gums are moderately inflamed.

Chest. Lungs: Negative throughout.

Heart: Apex beat maximum intensity 5th space in nipple line. Strength very poor. Fairly regular. Borders are enlarged. Sounds are of poor quality. Soft blowing systolic murmur present at the mitral area—transmitted into axilla.

Abdomen: No distention. Muscles are somewhat rigid.

Extremities: Upper are somewhat spastic. Tremor (fine) of hands present. Lower tendon reflexes are exaggerated, especially so on the right side. Babinsky present. Slight Rhomberg present also.

Impressions: Syphilitic (chr.) myocarditis. Fibrous endocarditis. Syphilis of the central nervous system.

Dr. Kandt's report: Pupils unequal, right shows slight irregularity of outline. Ptosis left lid. Pupils react to accommodation, right more readily than left, very slight if any reaction to light.

Arteries: Sclerosed and tortuous.

Heart: Enlarged down and slightly to the left. First sound snappy and followed by a blowing murmur, transmitted. All sounds at base are weak, $A_2 = P_2$. Rhomberg positive (more lateral than anteroposterior sway). Left patellar reflex diminished or absent, right exaggerated. Babinsky negative. Patient cannot place finger on tip of nose with eyes closed.

Impressions: Arterio-sclerosis involving coronaries. Myocardial degeneration, sclerosis of mitral valve, syphilis of central nervous system, angina pectoris.

Dr. Eastman reports: March 19, 1919: Pupils irregular in outline, left larger than right. No reaction to light in right, left very sluggish: accommodation in both O. K.; partial ptosis left lid, partial paralysis of intrinsic muscles of left eye supplied by third nerve. Grip O. K., resistance movements O. K., co-ordination upper and lower extremities O. K., coarse tremor of hands, tremor of tongue and lips. Brachial olecranon, radial and ulnar reflexes increased—equal. Patellar reflexes increased, right greater than left, right achillis tendon reflex greater than left; plantar reflexes O. K., right Babinsky reaction. Jaw-jerk, epigastric, abdominal and cremasteric reflexes O. K. Paresthesias of right leg, but no anesthesia or analgesia; position sense O. K. Stereognostic sense O. K.—no tenderness of nerve trunks. Gait slightly uncertain, probably due to weakness, slight sway on standing with eyes shut. Voice hoarse; no speech defects. Would suggest spinal Wassermann with cell count and colloidal gold; throat examination for possible syphilitic laryngitis. Diagnosis: cerebral syphilis.

Dr. Wallace reports, March 20, 1919: Because of his condition this man had to be taken with a screen and detail is not good, but there is a tremendous widening of the aorta and of the upper (right) part of the heart. If patient's condition justifies, he should be rayed again.

Dr. Bishop reports, March 21, 1919: Partial paralysis of third nerve on the left side, media clear. Fundus is normal in both eyes.

There is a partial ptosis. There is unrestricted motion of the left globe in all directions except outward.

Dr. Stone reports, March 31, 1919: Epiglottis, false cords and arytenoids are swollen and red. Vocal cords coapt in midline with no impaired motility.

March 29, 1919: Dr. W. H. Wallace reports although examination is not very satisfactory there appears to be a bulging under the heart on one side, as of an aneurysm, but not on the other.

In the analysis of this case one must choose between a cerebral growth with local manifestations in the brain and aorta on the one hand and a thoracic aneurysm with pressure symptoms causing pseudoangina and involvement of the sympathetic system with ocular symptoms on the other. It will be noted that both diagnoses depend upon the syphilitic base and do not influence the question of treatment.

Dr. Bishop reports the involvement of the ocular motor group of muscles of the left side with a special reference to the third nerve and without pupillary changes. Dr. Eastman noted irregular pupils. While simple involvement of the sympathetic system is usually associated with the pupillary changes, it is conceivable that it might not always be so. But one would expect that pressure at such a distant point as the upper thoracic ganglia would produce bilateral changes. This evidence is rather in favor of a central cause for the ocular symptoms and bespeaks a general luetic infection with scattered foci. The pain in the chest, which was his chief complaint, is doubtless explained by the expansion of his aorta. In the first picture of March 20th, the aorta is reported as expanded as well as the upper right part of the heart. In the subsequent one of March 29th, the picture suggests rather an irregular bulging of the aorta as of a sacculated aneurysm. The pains radiating into the left arm might be due to changes in the coronary arteries, which would quite appropriately accompany the general syphilitic involvement, but they might be with equal propriety attributed to the pressure of the enlarged aorta. Incidentally it may be stated that aneurism of the transverse or descending arch is the aneurism of symptoms and not of signs. Without the various phenomena of pressure and the x-ray a diagnosis is often impossible.

This patient has been put upon salvarsan with 1/10 of a grain of salicylate of mercury every second day. He improved rapidly and left the hospital on April 13, with instructions to report at intervals for observation. A 1+ Wassermann was reported early in May.

AORTIC REGURGITATION—TWO CONTRASTING CASES.

Henry G. Webster, M. D.

Brooklyn, New York.

M. F. Age 12. Was admitted to the Methodist Hospital March 9th, 1919, suffering with pain in his joints. His father is living and well. His mother is living but does not enjoy very good health. He has two brothers, neither of whom are very well. One brother died, cause unknown. One sister died of rheumatism

at eleven years of age, and two other sisters are living and well. The patient had a previous attack of rheumatism at six and a half years and was in bed for about a month. He has had measles *several times*, diphtheria in infancy, operated for acute appendicitis nine months ago. Present illness began five days ago with headache, fever, then arthritis of the shoulders and elbows and later of his ankles and knees. He became conscious of his heart beat and became short of breath. His joints had begun to improve upon admission to the hospital and his heart does not beat so fast except when he drinks water. His appetite is poor, bowels moving regularly, no gastrointestinal symptoms, no urinary symptoms.

Examination shows a poorly nourished, neurotic looking boy. His eyes react normally. His throat is markedly injected. Tonsils are enlarged. Mucus is adherent to the posterior pharyngeal wall. Tongue coated. Lungs negative. *Heart*. Left border is enlarged to one-half inch beyond the nipple line and apex impulse is felt just beyond the nipple in the fifth interspace. Second pulmonic sound much stronger than second aortic. There is a soft blowing murmur, systolic in time, present at the apex and there is an occasional third sound present. The abdomen shows scar of old operation at the right side, otherwise negative. Joints are a little stiff, not swollen or tender. No increase in size. Upon admission temperature was 103, pulse 120, respirations 35, blood pressure 108:60. No urinary findings. R. B. C., 4,720,000. Hemo. 70%, Leu. 9,200, Polys. 71%, L. M. 2%, S. M. 27%.

This case is apparently one of acute polyarthritis complicated by mitral regurgitation and apparently resultant from the streptococcus infection of the throat. On the following day examination of the heart showed an entirely different condition.

There was no evident hypertrophy, the apex beat was in the fourth space just at the nipple line. All sounds were loud and ringing. There was some slight reduplication of the second sound at both apex and pulmonary area and merely a soft bruit was heard over the pulmonic area. On the 11th the sounds were of better quality and on the 12th there was only a slight tendency to reduplication. It was thought, therefore, that the conditions found on admission were the result of a myocardial weakness incident to the high temperature and the excitement of being moved from his home to the hospital. On the 14th, Dr. Smith, the pathologist, reported that the blood culture showed no growth and that a + + + + Wassermann was present. The temperature had fallen steadily until the 15th, but there was still an evening rise to 99½, which on the 20th jumped to 102 with corresponding rise in pulse and a recurrence of his joint symptoms. On the 24th a soft blowing systolic murmur was heard over both mitral and pulmonic areas. On the 25th there was a loud diastolic bruit heard at the base along the left sternal border with its maximum intensity at the third left costal cartilage. A 2 accentuated, a Corrigan and capillary pulse were both present and a pistol shot sound was heard over the femorals. This was thought to be a true acute endocarditis. By April 9th there was a loud double murmur over the entire precordium. At this time a second Wassermann was reported doubtful. The recrudescence of temperature subsided on April 1st and did not again recur and

the pulse slowly dropped from an average of 110 to an average of 90 by April 20th. On April 29th, the heart showed a loud blowing systolic murmur at the apex following the strong first sound. It lasts up to the accentuated second sound and is transmitted into the axilla. There is a faint systolic and a loud, blowing, low pitched diastolic murmur at the aortic area and along the left sternal border with maximum intensity at the third costal cartilage. A ++ but less than P 2. Pistol shot sound of moderate intensity over the femorals. Compensation good.

This boy's tonsils were removed on April 28th without untoward incident. When discharged on May 11th he was in good physical condition except for the damaged valves.

M. D.: Age 63: Colored. Admitted to the Methodist Hospital March 19th, 1919, complaining of shortness of breath. Family history not important. His past health has been fairly good except that he has had pneumonia three times. Denies venereal disease. Does not use tobacco and uses alcohol but very little. Has had some slight attacks of "rheumatism." During the Christmas holidays of 1918 he began to be very short of breath and a sharp pain over the region of the heart came on about the same time gradually for no perceptible cause. He has been able to do a little work, but not much. At present, apart from his difficult breathing and inability to go upstairs, he feels fairly well. He is conscious of palpitation upon exertion. He says his feet have never been swollen, that his appetite is variable and that he has no nausea nor vomiting. He urinates from six to seven times every night and less often during the day. When admitted the following conditions were found upon examination.

Is a well built, fairly well nourished man propped up in bed and breathing with a little difficulty. His teeth show many cavities and some pyorrhoea and there is a rounded, tense tumor in the roof of his mouth, probably an osteofibroma. The lungs are moderately emphysematous, especially on the left side where there is hyperresonance, prolonged expiration and roughning of both sounds. The heart is much enlarged, the area of dullness extending 16.5 cm. to the left and 3 cm. to the right, with a somewhat diffuse impulse, felt most clearly in the 6th interspace. P 2 is greater than A 2. Along the left border of the sternum there is heard a harsh, blowing, diastolic murmur, and the second aortic sound is not heard. The abdomen is somewhat distended and the upper border of the liver percusses high. On the following day fluid was discovered in the right chest; it was aspirated and a liter of blood-tinged fluid was withdrawn. On the 25th, following digitalis medication, the patient was much improved and a definite determination of the cardiac sounds could be made. The systoles occurred distinctly and regularly in couplets, one strong systole followed by a weak one. All reached the wrist in the same alternation, but only 50% reached the femorals where the strong systoles give a distinct pistol shot on both sides. A double murmur is heard at the base and along the left sternal border, both murmurs very loud with the strong systoles. The systolic murmur becomes almost inaudible with the weak systole, the diastolic much abbreviated. A 2+. A systolic bruit is transmitted up to the clavicle; no thrill, no capillary pulse, no

Duroziez. A polygram was made on the same day with substantiates the bigeminal character of the pulse, but the second impulse is distinctly weaker and trails off into an asystolic period. The carotid wave is about 1-10 second in advance of the ventricular impulse at the wrist. Some of the jugular waves show one or more extra auricular eminences suggesting a slight fibrillation. In addition to the sounds already described, there is a suggestion of a Flint murmur at the apex and in the 5th interspace 3 cm. to the left of the sternum there is a loud rough double sound, suggesting a pericardial adhesion. The average blood pressure was 150:60. There was a trace of albumin constantly present, an average sp. gr. 1.020, and occasional granular casts in the urine. A renal efficiency test on March 21st gave a total of 36% 'Phthalein. There was a well marked secondary anemia, and on the 9th of April the Pathologist, Dr. Smith, reported a + + + + Wassermann.

During the patient's residence in the hospital from March 19th to May 28th, there were frequent febrile periods during which the temperature would show irregular daily evening elevation to 102, but efforts to identify tuberculosis were futile. As soon as the Wassermann was reported he was put on mercurial treatment with iodides and showed symptomatic improvement at the time of his discharge.

In contrasting these two cases, there are certain points that strike one at once. Both showed a previous history of rheumatism and both showed positive Wassermann, although the younger patient was not substantiated by a second test which came back plus or minus, but here the similarity ceases. There is little reason to doubt that the luetic element in the older patient was largely responsible for the involvement of the aortic valves even though a history of rheumatic attacks is present. Rheumatism is later removed, induced a second bacteremia with true endocarditis. such a loose term and one that is applied to practically all sorts of painful affections from a simple muscle pain to an extreme polyarthritis, that it should not be too seriously regarded in a history unless definite joint involvement can be shown. Furthermore, the dental conditions present in the older patient were so well marked as to warrant one in blaming them for the so-called rheumatic pains.

In the younger patient one was able to follow the inception and growth of the endocarditis. First, there were sounds suggesting involvement of both aortic and mitral valves that disappeared with the subsidence of the fever. This suggests that the myocardium was merely weakened by the combination of toxemia and high temperature, permitting a relaxation of the valve rings with relative insufficiency of the cusps. When the fever subsided the muscle resumed its tone and the murmurs disappeared. Following a short afebrile period, the infected tonsils, which were later removed, induced a second bacteremia with true endocarditis. The aortic valves, rendered more susceptible by the previous attack, became the seat of definite vegetation and permanent murmurs resulted. No positive prognosis, however, should be made in the case of this boy until a sufficient period has elapsed

to show whether a reparative process may not be at work to reduce the deformity to a negligible factor.

In the case of the older patient, cardiovascular changes have been at work for years resulting in massive hypertrophy as shown by the radiograph as well as by physical examination. Pleuritic transudation and dyspnea show that the period of decompensation has arrived. With the recognition of the luetic element and the symptomatic improvement shown since treatment was instituted, one may venture the hope that a period of usefulness may still be obtained for this man.

In this connection it may be well to emphasize that the true estimation of any case of carditis rests not so much on the anatomical changes as upon the functional capacity of the organ and that time and observation of the cardiac response to varying conditions of stress is the one way to determine a rational prognosis.

A "FOLLOW-UP" SYSTEM.

THE following report embodies the plan adopted by the Medical Board, and recommended to the Board of Managers. The various forms are believed to be sufficiently clear to require no explanation or elaboration.

The Medical Board,
M. E. Hospital.

Your committee recommend the adoption of the following follow up system of this hospital, it being understood that it applies only to ward patients, and to those applying directly to the hospital for treatment.

It is felt that this work should be done through the hospital as a central bureau, and that the attending should assume the responsibility of having the final reports entered on the hospital history in order to complete the records.

Card to be sent to the Doctor

Methodist Episcopal Hospital
6th St. & 7th Ave.,
Brooklyn, N. Y.

Dear Doctor:

Your patient Mr. _____ was discharged today from this hospital and instructed to report to you without delay for further care. As it is most desirable to keep a record of the results of hospital treatment we ask your co-operation in having your patient return here at intervals of three months for examination.

Yours truly,

Supt.

(1)

To be handed to the patient when he is discharged,

Methodist Episcopal Hospital
6th St. and 7th Ave.,
Brooklyn, N. Y.

In three months time a postal will be sent to you, asking you to return to the hospital in order that you may be examined to deter-

mine your present condition. It is very essential that you come for this examination.

Nurse in charge of ward to enter his name and address in a diary under a date three months ahead of the time of his dismissal.

Each week charts of patients discharged the previous week to be gone over by the stenographer, and the following card filled out:

Record Card

(2)

Diagnosis

Name

Address

Operation or Disease

Admitted

Subsequent course

Age

Sex

History No.

Attending

House Surg. & Physician

Discharged

These cards to be filled according to diagnosis, the classification being that of the Bellevue Nomenclature.

Return notes are later to be written on these cards.

(3)

A separate alphabetical name file to be kept containing the name of patients and the diagnosis under which their history cards can be found.

A week before the date entered in the diary a postal is sent, requesting patient to return the following week, at such time as may be specified by the attending, leaving it to each man to fix his own time to have patients return.

(4)

Methodist Episcopal Hospital
6th St. and 7th Ave.,
Brooklyn, N. Y.

19

My Dear

Will you kindly return to the hospital on _____ as
Dr. _____ desires to note the progress of his patients
after they leave the hospital.

Bring this card with you. If you cannot come, please write and tell us how you are.

Signed,

Supt.

Name,

Acute Appendicitis,

On the day a particular Attending's patients are to return, the cards of these patients are brought out and as each patient goes in

for examination his card is sent in with him. After examination a note as to his present condition is dictated to the stenographer or house surgeon, and these notes are later typewritten on the card which are then returned to the file. As these cards cannot be bound with the original history, the note should be copied on the original history by the stenographer.

(5)

Patients whose condition is such that they must remain under observation are given a card bearing the date when they are to return for further examination.

Methodist Episcopal Hospital
6th St. and 7th Ave.,
Brooklyn, N. Y.

Patients name,
Please return
On
At

Supt.

The names of patients not returning are to be handed to the Social Service Department for nurse for investigation. She reports the results of her investigation to the stenographer, who makes whatever note is necessary on the history cards.

Cases of special interest to be clipped with colored metal signals each service having a different color, in order that they may be kept under observation.

The notices to be sent to patients should be printed on ordinary postal cards.

Method of filing.

1st. Patient's record card (form No. 2) 4-6 card filed alphabetically.

2nd. Diagnosis card (3-5) Filed by diagnosis
(Diagnosis, name, hospital number)

3rd. Memory card with name and address to be filed under the date on which the notice is to be sent, and after the patients visit transferred to the next notification date.

A. H. BOGART,
O. P. HUMPSTONE,
H. G. WEBSTER,
Committee.

Form of second notice used by Presbyterian Hospital

Dear Mr.

We asked you to come to the hospital on _____ and have not heard from you. As we explained in the last notice, we wish to find out your present condition.

The treatment in the hospital gives different results in different individuals. It is therefore extremely important that we should know your present condition in order that we may be able to give you correct advice, and at the same time complete our record of your case.

If you will call at the hospital _____ you will be directed to the doctor with whom you are to consult.

Very truly yours,

PSYCHIC TRAUMA.*

With a Report of a Case of Unusual Severity.

E. H. Bartley, M. D.

Brooklyn, New York.

A CHILD is said to be neurotic when its nervous system responds to stimuli to an exaggerated degree, or responds to stimuli which, under usual conditions, would not perceptibly affect a normal child. The nervous system varies greatly in its reaction to stimuli in the same individual in different states of general health.

In general, the nervous system becomes more sensitive to stimuli during periods of undernutrition, or unusual stress, or during or following the various acute infections. It is well known that the various forms of spasmophilia, in early life, are most likely to occur in the late winter or spring months, during convalescence from the acute contagious and infectious diseases, or in children suffering from malnutrition. An undernourished nervous system is an irritable or unstable one. Neurotic children, especially if suffering with rickets or malnutrition, are liable to convulsions from intestinal irritation or at the onset of any infection, the seizures often resembling epilepsy; i. e. they seem even to occur without an apparent exciting cause. Any sudden shock of the nervous system, as fright, emotional disturbance, great disappointment, or parental correction may precipitate some profound neurotic disturbance. Fright is generally mentioned as among the most common immediate, exciting causes of chorea. The worst case of chorea I have ever seen followed being thrown into a pool of water by the roadside, while the child was dressed in her best clothes. This case almost proved fatal from inability to swallow food or drink. I have often traced an attack of chorea to the friction between a child and its teacher or parent, extending over some weeks. We must recognize psychic trauma, or shocks of the nervous system as a causative factor in producing a number of neuroses in children of a neurotic tendency.

We have a good example of the effect of a sudden insult to a nervous system in shell-shock. It is now generally admitted that certain persons who may be characterized as having unstable vaso-motors, or hyperthyroidism, or unstable nervous systems are most liable to shell-shock. We have learned to recognize these men in our draft-board examinations, and have rejected them as unfit, because of their inability to stand the severe strain of trench warfare. A history of a previous nervous break down, should reject a young man from the first class soldiers, as this shows he has an unstable nervous system.

The symptoms of shell-shock are those of hysteria with all of its protean manifestations. Some recover quickly while others recover slowly. It is a well known fact that a very large number of these cases, occurring during the recent war, recovered almost immediately on the signing of the armistice. All this shows that

* Read before the Brooklyn Pediatric Society Nov. 20, 1918.

a previous unstable condition of the nervous system is present before the shock. So it is with children. It is often unfortunate that parents and teachers do not recognize these neurotic children, as this knowledge would assist in the proper management of them.

It is a custom in some families to frighten children into obedience by telling them ghost stories, or by picturing to them the danger of a visit from "the bad man," or that the doctor will come and cut off their ears, etc. Such practice is to be condemned as highly injurious. Another practice to be condemned is the taking of children of five or six years of age to the theatre or picture shows. The life of these shows rests upon their ability to thrill the audience. These thrills are not desirable for little children, as they excite them unduly. It would be a wholesome law that would exclude from the picture shows and theatres all children under ten or even twelve years of age.

It is unfortunate that quite a number of the children of our cities have exhausted almost every line of pleasure and entertainment before they have reached the years of discretion. One who has much to do with children becomes impressed with the large number of neurotics among them. It appears that we are raising more and more such children each year, and are consequently adding more and more to the army of adult neurotics. It seems to me that something should be done, if possible, to check the nervous strain on the children of our large cities.

The following is the history of a case which illustrates the serious consequences which may occasionally result from a shock to a nervous system:

M. E., female, aged 6 years, was admitted to the Long Island College Hospital at 2 a.m. on March 26th, 1917, with the following history: She was well on the previous morning, and was playing on the street, when some boys lifted her up on a high fence and left her hanging by the hands from the top of the fence. She became frightened, screamed for help and was soon taken down by some passers by. When released she seemed very weak and walked home with difficulty. When she reached home she was so weak and disturbed that her parents put her to bed. During the afternoon she slept most of the time but moaned in her sleep. During the evening she became feverish and at midnight she had a severe convulsion, accompanied by excessive salivation and followed by coma. An ambulance was called and she was brought to the hospital.

The family history was good. The father, mother and two brothers, one 7 and the other $1\frac{1}{2}$ years of age, were alive and well. The mother had no miscarriages. This child was said by her parents to be a healthy, normal child but rather nervous and easily frightened. She had pneumonia when four years old, measles at five and pertussis two months later, or four months before this occurrence. On admission she was convulsed; her temperature was 101.6° F, pulse 135 and irregular, respirations 44. She was given a colonic irrigation, a hot mustard bath and 15 grains of sodium bromide.

At 8 a.m. her temperature was normal, pulse 115, and respirations 25 per minute.

At 10 a.m., 12 m., 1:30, 3, 5, and 6:30 p.m. she had con-

vulsive siezures lasting about one minute. During the night the convulsions continued at frequent intervals in spite of several doses of chloral hydrate and bromides. During this time her temperature rose until it reached 107.8° F in 36 hours, or, on the evening of the 28th. She was then given a hypodermic of morph. sulph gr. 1-12 with atropin sulph gr. 1-300, which stopped the convulsions. The coma continued with some variations until April 4th or for nine days, when she spoke a few words. The temperature began to drop on the cessation of the convulsions and in 24 hours reach 99.4° F. and normal in a few days. The pulse continued rapid and somewhat irregular, and the child remained in a semi-comatose condition until about April 18th. She was in a cataleptic state for several days. After the 18th she was wildly delirious for several days, laughing, crying, screaming, etc. We were obliged to resort to hypodermics of morphine sulphate to quiet her, and on one occasion to ether anaesthesia.

During these days of wild delirium her pupils were widely dilated in spite of the morphine. She seemed to be blind, or at least, showed no reaction to light or showed no appreciation of what she saw.

During this time her pulse was so weak and thready that she was given camphorated oil injections and digitalis. About April 23rd to the 25th her mental condition began to improve to such an extent that she regained her speech.

She did not seem to see well until the 28th. She was troubled with paroxysms of great terror, was very sensitive to noises, and was very changable from mealancholy to extreme hilarity. She was able to carry on a limited conversation only about May 4th or about forty days after her admission. From this time she slowly improved and left the hospital on June 17th.

Laboratory study: Spinal puncture was performed on Mar. 27 and April 2nd. The cell count on the 27th was 3 cells and on Apr. 2nd 5.

The blood count on Mar. 28th gave Reds 5,400,000, W. B. C. 12,600, Polymorphonuclears 78%, Small Lymphocytes 12%, Eosinophiles 7%. On April 1st W. B. C. 9,000. April 17th, W. B. C. 10,000, Polymorphs 65%, Lymphocytes 30%.

Urine: Sp. gr. 1,015, excessive amount of indican, otherwise negative.

Van Pirquet, negative. Wassermann, negative.

The above examinations excluded meningitis, nephritis, and any acute infection, such as pneumonia, typhoid, tuberculosis or lues. The whole course of the disturbance seemed more like hysteria than any other condition. Chorea was in mind, but there were no choreic movements at any time. The eosinophilia is explained by the presence of oxyuris vermiculasis in the stools. She was seen by Prof. Browning who could find no evidence of any organic disease.

It will be observed that a high temperature occurred during the continuance of the convulsions, but subsided rapidly when these ceased, and was regarded as due to the psychic disturbance, which was extreme. The long coma may be attributed to cerebral oedema as a direct result of the large number of convulsions.



EDITORIAL



SENSIBLE SHOES FOR WOMEN.

ONE NOTES with satisfaction the announcement that the combined efforts of the Young Women's Christian Association have succeeded in interesting the manufacturers of shoes in a crusade looking to much needed reform in the question of proper shoes for women. There are four points of view from which this subject may be approached; the feminine, the masculine, the utilitarian and the economic. It is with the utilitarian standpoint that these remarks must deal. Like the State Attorney in opening a case in which he knows that his witnesses hold the key to the situation, it may be conceded that the high heel slipper is a thing of beauty, that appearing at a greater or lesser distance from the bottom of the skirt, it is a point for critical masculine observation and that combined with certain materials, colors and curves, it is an absorbing topic of feminine approval. But granted these things, there still remain some thoughts that every woman should take into consideration. Let us concede that there are times when a light slipper may be appropriately worn and when the high heel and the narrow toe assumed for the ball room or the evening reception are harmless and gratifying the aesthetic sense. It is a matter susceptible of proof that the foot that is constantly clothed in a high heel, narrow pointed shoe, becomes in time deformed and is at all times subject to injury that it would be spared if properly shod.

The purpose of the foot is obvious; it is made to stand on and walk on or climb with, with comfort, and shoes are added to it for protection against the roughness of the way and for that purpose only. For the man or woman who is compelled to earn a living by standing or walking much, it is essential that the shoe should aid the foot and not hinder it. Four millions of the best young men of this country have worn for two years a sensible shoe built to aid them in the most arduous of human undertakings—warfare. Many of their places have been taken by women who have assumed arduous duties, such as street car conductors, porters, waitresses, nurses and the like and they have endeavored to perform those duties shod in ball-room shoes. That such was often a necessity and not their choice may be shown by the experience of almost any young woman who endeavors to purchase a moderate priced shoe. With rare exceptions the moderate priced shoe for women is most extreme and its last absolutely deforming to the foot. We have talked with practical shoe manufacturers on this point and have been told that business competition demands constant changes in the shape and patterns of shoes and that this is the reason why the manufacturer is compelled to perpetuate the abominable style of high heels and narrow

toes for women. On the other hand the physician and husband is able to state that with the exception of the Ground Gripper type of shoes, there are practically no shoes on the market which conservative women can buy unless at prohibitive cost.

It has been abundantly demonstrated that hammer toes and deformed arches, bunions and callosities are the legitimate and constant result of improper shoes and if persisted in will surely bring about changes in the feet of the coming generations.

It is not intended in these few remarks to take up the cudgels in favor of any special type of shoe. Whatever our convictions may be, we realize that it took three years to persuade the supervisor of a certain training school for nurses to disguise her own neat and attractive feet in a sensible working shoe and to use her moral influence so that her pupils should be properly shod. It will take more than that to persuade womankind to follow her good example. But if the combined shoe manufacturers of the country will provide moderate priced shoes of moderate type so that the women of limited means are not driven to wedge their feet into the abominable shoes that they are now compelled to buy, it will not be long before the leaven will spread and millions of backaches will disappear and twice as many feet will be restored to the shape that their Creator intended. H. G. W.

THE NARCOTIC SITUATION.

A NOTABLE gathering discussed before the Kings County Medical Society on May 20th, the question of drug addiction from a variety of angles. Dr. Copeland, the Health Commissioner; Judge Collins; Miss Mulhall, representing the State Commissioner; and Mr. Matthews, the United States District Attorney, gave each a different angle of illumination that served to emphasize tremendously a problem which to the ordinary physician has not seemed as serious as it is because its breadth and height and depths have not been revealed to him. Speaking as one who has enjoyed the opportunities offered by a varied practice, both private, departmental and hospital, covering nearly twenty-five years, I am frank to confess that the extent of drug habituation revealed by personal experience has been almost negligible, and in speaking thus, I probably reflect the experience of the bulk of ordinary practitioners. But when viewed from the standpoint of the City Magistrate's Court and from the District Attorney's office and from the recent experiences of the Health Department's Clinic, the situation that has developed is appalling. Figures as published by the Health Department go to show that heroin seems to be the favored form of debauch and young persons, from eighteen to thirty, the principal victims. While it is gratifying to physicians to learn that comparatively few trace their downfall to drugs administered for the relief of pain, there are still enough addicts who claim this source of habituation to emphasize the extreme care that physicians must exercise in prescribing narcotics. In this connection one is reminded that hospitals are prone to permit the use of sedatives to an extent that has not been realized until the total narcotic purchases for any year are

studied and it would be well if the visiting staff of every hospital would review for themselves the question of the administration of narcotics in the institution to which they are attached. Apparently the main source of supply has been through pedlars on the one hand and a few unscrupulous doctors on the other; and it is these few reprobates who have brought upon the entire profession a situation that is irritating, to say the least. As far as the general profession is concerned, there seem to be two questions of immediate import, the relation of the reputable physician to the treatment of addicts and the restrictive changes in the State and Federal laws looking to more effective control of drug distribution. The plea was made that reputable physicians should not hold aloft, but should undertake the proper care of any drug addict who may present himself, so that a cure may be effected if possible; and we are urged as a profession to submit to an annual registration in order that a closer scrutiny of the unqualified practitioner may result. This question of the treatment of the drug addicts is a very vital one inasmuch as a physician who undertakes it at once becomes a subject to suspicion in spite of the assurance of the authorities that one has nothing to fear so long as one acts in good faith. But it is difficult to avoid the fear lest the larger purchases of narcotics and the increased number of prescriptions will not precipitate a descent by the police. Although the law declares us innocent until proven guilty, we still have the trouble of proving our innocence, to say nothing of the annoyance of the records which add another detail to the already burdensome duties of medical practice. This very question of good faith is one that makes an experienced physician hesitate to undertake the care of a drug addict, because he realizes that the average addict down at the bottom of his heart does not want to be cured, but does want to get his drug. Furthermore, it is always possible that some zealous police officer, looking to make a reputation, may be using the addict as a decoy so as to increase his records for arrests. As at present constituted there is no way for any physician to know that the addict whom he is treating, supposedly in good faith, is not going to a half dozen other physicians and supplementing the treatment of Dr. A. by the prescription of Dr. B. and Dr. C. and so on to the Nth power. In spite of the official invitation to assist by treating the unfortunate addict, the average physician will probably be well advised before undertaking such a responsibility to render himself absolutely sure of the case he is treating by every means of identification in his power, and to refuse treatment unless he can be so assured.

The JOURNAL will publish in an early issue a full report of the remarks at the Meeting so that physicians may judge for themselves as far as possible just where they stand in the estimation of the constituted authorities.

H. G. W.

"MEDICAL RECONSTRUCTION" A PARTIAL ANSWER.

Harris A. Houghton, M. D.

New York.

IN order to effectively comment on the article of Dr. Warbasse in the May number of the *Long Island Medical Journal*, it is quite essential that we have a common ground of discussion based on mutually acceptable premises and acceptable definitions. It might as well be acknowledged at the start that this is impossible. Many if not all of his premises are either half-truths, demonstrable as such (not matters of opinion), or not true at all, as I shall take occasion to show. Many are insulting to Anglo-Saxon intelligence. If accused of Bolshevism or Socialism, he will plead guilty. If accused of being an advocate of violence for the purpose of bringing about "industrial communism," he might deny it, though the thinness of the veil he throws over this portion of his utterances clearly discloses exactly of what he is thinking, and under the espionage act, this is a punishable offense.

He accuses most of the medical profession as not having grasped the facts and consequently not being in a position to put themselves on the side of progress (which of course means what he calls progress). In another paragraph he states that the sources of information usually relied upon by the doctor are encompassed by a capitalistic press, owned and controlled by big interests for the explicit purpose of moulding public opinion and complains bitterly because the doctor does not read some of those Bolshevik papers which of course are the only ones to tell the real truth. I shall give him and others an opportunity in a moment. The point is now that I presume I reflect a majority opinion when I say that prior to the war, I had little interest in radical reading. Since that time, I have read much, and the more I read the more conservative I become. There are many of us who used to pride ourselves on being "conservatively progressive." Since the war has disclosed where this sort of socialistic bunk comes from, we are now in the position of the man from Missouri, who "wants to be shown," before he will "come across." The parallelism which exists between the attitude of the loyal American to Teutonism and the loyal American to Socialism is a perfect one. The war has galvanized his attitude. Before he was indifferent or tolerant. Now, anything which is presented to his consciousness from either source is condemned before examination, simply on account of its source.

One doesn't argue with a lunatic. You either ignore him, or if he is dangerous, lock him up. For parallel reasons, one doesn't waste much time with a Bolshevik. What he stands for is well represented by conditions in Petrograd and Moscow. Misstatements and half truths are a characteristic method of propaganda in use by the Bolshevik. Appeal to passion and extra-legal methods for the accomplishment of political and industrial results is so antagonistic to order, good government and natural evolution that the patience required to argue is by no means entirely a virtue. To illustrate by the first sentence, which Dr. Warbasse writes: "The world is in a state of revolution, in which the conflict is between the interests of property and the interests of labor." There are two statements in that sentence, neither of which are true. The world is not in a state of revolution. It is in a state of normal evolution, progress now a little faster perhaps because of the general hyper-

aesthetic state which follows all great wars. Wherever there is an appearance of revolution, the slimey trail of Germany can be found just beneath the surface, and not very well camouflaged at that. German arms have been whipped to a finish. Germanism, and all that it stands for, its Kultur, its sordid sexual perversions with resultant brutality, its despicable yellow streaks, its imperialism and capitalism have been whipped about ten per cent, and the ninety per cent left over will be put out of business just as fast as Anglo-Saxonism and its level-headed Allies can finish the job. Nor is the fight between capital and labor. It only takes that form. In the last analysis, it is either one of the following according to your viewpoint:

1. It is a fight of brute force against brains, or ignorance against learning and training. *

2. It is a fight between Germanic ideals and aspirations, *used at the present moment in an attempt to make the world safe for Germany on the one hand and against real political Democratic idealism on the other.*

Take another sentence from Dr. Warbasse: "His profession (the physician's) differentiates itself from that of labor in that the leaders of medicine desire that the present economic system shall continue, while the leaders of labor desire that it shall not." This reference to labor and leaders of labor as synonymous with socialists, I. W. W., Bolsheviki, and Union of Russian Workers, is constant throughout. The attempt is to insinuate that labor is at one with these organizations and create the impression that labor is committed to the general programs fostered by those organizations. That statement and the inference which goes with it are untrue, and none know it better than Dr. Warbasse. There is not one labor organization in this country which has membership covering more than the boundaries of one state or which is not permeated with a foreign-born Germanic influence, which stands for any of those things. There was an attempt made last year, which is being continued now, which has for its purpose the deliberate disruption of such labor organizations as the American Federation of Labor, by the famous Germanic infiltration method, but this attempt, so well financed presumably by foreign capital of German origin, has failed and is now on its last legs. *

Since this sentence was written, the American Federation of Labor has met at Atlantic City. Notwithstanding the noisy attempts of a very small minority, the Federation has persistently refused by vote after vote to favor any program which has socialistic or Bolshevik tendencies.

Incidentally there is a suspiciously good financial backing behind all this thing, and especially behind the publications of the

* An interesting confirmation of this interpretation has just come to hand, as I am reading the proofs. In an article by Mr. Jerome Lanfield, which appeared in *The Times* of June 15, and who is an authority on Russia, it is stated: "So much for the theory," (speaking of the theory of the Bolshevik leaders. "It may be that some few people including Lenin and Chicherin, believe in it. As a matter of practice it simply meant that the under dog was to come out on top, and with a hatred born of envy glut his appetite for plunder and murder upon those who under the existing order were better off materially and intellectually. Mark the word intellectually well, for the hatred of the Reds is far more bitter towards those who owe their pre-eminence to brains than towards those who have wealth. The outrages in Russia against the intelligent and professional classes have been far more violent and vicious than against the rich."

various shades of radicals, such as the *Liberator*, the *Call*, the *Nation*, the *New Republic*,* the *World Tomorrow*, the *Dial* or the *Survey*, all of which Dr. Warbasse speaks of with so much respect. Who is putting up the money? Who is putting up the money to finance "The Messenger" the negro Bolshevik paper, with a circulation of nearly fifty thousand among Southern negroes and not an advertisement. It must cost something, as it is printed on good glazed paper. It is full of this slimy propaganda.

Even if labor were united in this class struggle, Dr. Warbasse's premise would not be true. With a naïvete, so careless of the facts, and so characteristic of the Bolshevik, he fails to notice that all those who labor with their hands and belong to Labor organizations are scarcely 16% of the population. What about the balance—the 82%, allowing 2% to be rated as capitalists? Is 16% of the population going to rule the rest of us? It has been stated on the best authority that less than 3% of the population of Russia are Bolsheviks. Simmered down to facts, that represents just about the proportion which in this country is keeping up this continued agitation for radical socialism, and of those about 90% are foreign-born.

It would take more space than the editor would allow to point out all of these false premises with which Dr. Warbasse's article is so replete, and I desire space to present some facts to show exactly where this movement for the Germanic ideal comes from, and why it exists with such force in the Anglo-Saxon world today. The source is the same, and the object is the same, viz., *Germany*, and it exists and is fanned into a flame for the purpose of breaking down "morale behind the lines;" for the purpose of causing disintegration and disorganization that Teutonism may step in and dominate.

Ask any good Bolshevik on what his doctrinaire is based and he will promptly answer you, "The Communist Manifesto." I would advise anyone who has not read this precious document to get one and read it, but be sure and get a full, unexpurgated copy. That is difficult now, for, frightened by the force of public opinion, certain parts have been deleted. This document was written by Karl Marx, early in 1848, and was and is the veritable constitution, by-laws and everything else of the socialist, notwithstanding the fact that Karl Marx himself repudiated it. In the first place, here is the best resumé of the reactions which were life long characteristics of Marx, that I have seen and by not an unfriendly writer either: *

* In view of the editorial policy of the *New Republic* and the *Nation*, which Dr. Warbasse is so anxious to have us read, I do not hesitate to brand both of these publications as pro-German. Mr. Oswald Villard, who is the editor of the *Nation*, is one generation removed from Germany, his father's real name being Heinrich Hillgard and he was born in Speyer, Germany. Mr. Villard, as editor of the *Evening Post* at the time of the sinking of the *Lusitania*, excused that vicious, foul deed. Apparently the only difference which exists between Mr. Villard and Rumley of the *Mail*, is that one is in jail and the other isn't. It is a very interesting connection that Walter Lippmann, who was of Col. House's "Peace Plan" until last October, and is one of the editors of the *New Republic*, is an influential member of the "American Association for Labor Legislation," which is the principle sponsor for Compulsory State Insurance (The Davenport Bill). Of the methods used to further this legislation, P. Tecumseh Sherman, who is concededly one of the authorities in this field, says: "The campaign for health insurance in this country is built upon a tissue of gross, deadly lies, lies, lies! Simply a system of lies emanating from the father of lies. It is false in every particular. They are trying to delude the people; and what I am afraid of now is that they *have* deluded the people."

"He was without religion, having been converted from Judaism to Protestantism (for political reasons) by his father at the age of six, and having abandoned Protestantism for aggressive atheism when he grew to manhood. He was a man embittered by persecution, enraged by antagonism, soured by adversity, exasperated by suffering. * * * His inspiring and dominant passion was the passion of hate—hate in its virulent and peculiarly Germanic form * * * It was hate that goaded him to his enormous literary labors; it was hate that determined his selection and rejection of historical facts, for his distorted description of industrial England; it was hate that fixed his economic principles, that twisted all his arguments, that vitiated all his conclusions. * * * *Das Kapital* (1867) is the enduring testimony of Marxian animosity * * * It is a work of dogmatic mythology, the formula of a new religion of repulsion, the Koran of the war class."

So we have Karl Marx fixed. He was an apostate German Jew, actuated by Teutonic hatred of everything that is. His work is continued by his son-in-law, Longuet, in France today. Longuet did all that he could to aid the domination of Germany by means of this war, that Germany which is essentially capitalistic—more so than any country in the globe and which brought on a world war to make money and whose aims and ambitions are so utterly detested by all who love freedom, liberty and happiness. Karl Marx never did a day's work in his life with his hands. Neither has Lenine, nor have many others of the leaders of this so-called war between "labor and capital." The very men chosen to bear the red banner in legislative halls become reactionary and can't be trusted by their followers. Nor do these leaders pretend to have the slightest regard for their followers, the "poor working man," who more often doesn't work nor want to.

"There are two striking things about the "Communist Manifesto" written by Karl Marx. One is the idea that religion is a shackling and deterrent force in the social organization and the other that the marriage tie is a very loose affair. One cannot but admire the fact that if Marx desired disintegration of organized society (which he did as a forerunner to his own conceptions as to what society should be) he started at the two fundamental bulwarks of "reactionism."

In fact that is the German program of today, which eventually looks toward German domination, and the German General Staff is working through the various socialistic organizations, the I. W. W., the Bolsheviki, the Union of Russian Workers, and the what I call for a better name the Bolsheviki capitalists, as distinguished from "Parlor Bolsheviks," to accomplish that very result. Now let's see how this thing works out. Dr. Warbasse asks us as physicians to read some of the radical papers, and he recommends papers even more radical than the Call, or the New Republic. So I have selected one. It is called "Bread and Liberty," a weekly paper, published at No. 113 East 15th St., New York by Peter Bianki, the secretary of the Union of Russian Workers, and is the official paper of that organization. It is printed in the Russian language, and is therefore presumably inaccessible to most Anglo-Saxons. For their benefit, I have had a choice bit translated, which appeared in the issue of March 5, 1919, page 6 and col. 2. Here it is:

* Hearnshaw, *Democracy at the Crossways*, London, 1918, pp. 209-210.

"In Revolutionary Russia, a struggle against religion is in full swing.

"At Moscow, the doors of the churches are nailed shut and on the doors of the Cathedral of Vassily Blagenny and upon the ikon of the Blessed Virgin a palcard has been affixed with the following inscription: 'Religion is the opium of the people.'

"As can be seen, the revolutionary proletariat begins at last to understand that religion is not a matter of free choice of the individual as the Socialists claim, but on the contrary it is a social evil, a reactionary factor and a disease against which it is necessary to fight to the end.

"Just so long as the public believes in God in Heaven, there will be slavery on earth. * * *"

Karl Marx, Socialism, Bolshevism, atheism, cunning, sneaking German capitalism for revenue, all come pretty near shaking up in the same dice-box. Let me call attention again to the fact that this beautiful sentiment appears *only* in the Russian language in this country and that it is therefore accessible only to the ignorant. Would the New Republic or The Nation dare openly print such sentiments in English? It is for this reason that Dr. Warbasse characterizes these publications as "mildly radical"?

And now the second point as to the marriage tie. Here are two more choice bits, direct from Russia and the authenticity of which I am prepared to guarantee. Neither have before been published in this country.

Decree by the Soviet of Briansk, July, 1918.

Comrade Krepoff is hereby authorized by the Soviet of Briansk to nationalize at his choice among the women and girls belonging to the bourgeoisie classes of the city of Briansk, sixty women for the requirements of the Red Regiment of Artillery camped in the environs of the city.

President of Soviet of Briansk.

Signed,

X

(Signed by Cross)

Seal of the
Soviet of Briansk, July, 1918.

* Decree of the City of Saratov on the Nationalization of Women, March 15, 1918.

Social differentiations and the marriage state being in the hands of the bourgeoisie, a means by which the latter possessed themselves of the best and most attractive women, a condition which is exceedingly harmful to human generation. Adopting this as a premise, it is decreed that:

1. Beginning March 1st, the right of possession of their women by members of the Bourgeoisie classes is annulled.

2. All women between the ages of 17 and 32 years henceforth belong to the nation.

3. The disposition of all women is retained by the Soviet of Saratov; within three days all the women of this city are hereby ordered to appear for registry.

4. Until the formation of the *black cabinet* whose functions will

* The "decree of Saratov" has been published before but prior renditions have been incomplete. Paragraph No. 5 has always been eliminated in the lay press.

be the registration of women, is completed; all citizens are obliged to denounce all women who fail to comply with this order and registration.

5. All citizens have the right to use the women of their choice for a period of three hours, three times each week.

6. All citizens who do not belong to the working class and wish to provide by the above stated prerogative are obliged to pay into the public funds of the Soviet a sum of 100 roubles per month.

7. All women hereby declared the property of the nation shall receive 238 roubles per month from this fund.

8. All women who become pregnant are relieved of their obligations towards the nation for a period of three months before child birth and one month after.

9. One month after child birth the infants shall be deposited in special hospitals which will be established and will be raised and educated at the expense of the nation.

10. Every woman who gives birth to twins shall receive a prize of 200 roubles.

11. All men desiring to take advantage of the privileges of the public houses must show a certificate indicating their membership in the working class.

12. Every working man is hereby taxed two per cent of his monthly pay on account of the national fund.

13. All citizens, men and women, are ordered to submit to a medical examination at least once a week.

All those who attempt to evade this law shall be declared saboteurs, enemies of the people, and counter revolutionaries and consequently reactionaries and will be subject to the most cruel punishment.

This is the only authoritative document that I know of that attempts to regulate sexual relations of the individual with the exception of the Talmud.

Dr. Warbasse cannot claim that there are technical differences between Bolshevism and Socialism. The former is the direct and logical conclusion of the latter. Atheism and sexual pervertism are as much an integral part of one system as the other.

Dr. Warbasse bids us watch out and see where the physician is going to land in this new "revolution" which is coming. Fortunately we know. By decree of the Central Soviet of Petrograd, physicians were placed in the third class, which means that they were second to government employees, the Red Guards, and everybody else but the man who was fortunate enough to have a little money and hire a girl to wash dishes for his wife. The physician was considered reactionary, and dangerous, unless in the employ of the government. He was shot for the slightest offense and oftentimes on suspicion. His position in Russia today is exactly what the "Proletariat" think of him all over the world, and what it will become under any form of "industrial democracy," which the proletariat controls. Nor is this attitude confined to the physician. It applies to any man who has technical training and education, regardless as to whether he is a capitalist or not.

It is a favorite saying of the Bolshevik that two per cent of the people of the United States own 60 per cent of the wealth and that concentration of property in the country in fewer hands is increasing. I know not where the authority for the first statement lies, but

I doubt it. The second is absolutely untrue. It is not increasing; it is better distributed than it has ever been, and the distribution is getting wider every year. Nicholas Murry Butler recently asked, Is the United States worth saving? His answer was:

Ours is a land in which more than twenty millions of men, women and children have just now subscribed to Liberty Bonds.

It is a land with more than 18,000,000 dwellings occupied by about 21,000,000 families.

It is a land in which fully 6,000,000 families own their own homes without incumbrance, while 3,000,000 own their homes subject to mortgage.

It is a land in which more than 12,000,000 persons are depositors in mutual, stock or postal savings banks with total deposits amounting to more than \$6,500,000,000.

It is a land in which there are nearly 6,500,000 farms having a value including their buildings and equipment of more than \$41,000,000,000, and yielding an annual product of a value of more than \$8,500,000,000.

It is a land with more than 266,000 miles of railway in operation, carrying in a year more than 1,000,000,000 individual passengers and more than 2,225,000,000 tons of freight.

It is a land in which schools for the people are maintained at a total expenditure of nearly \$650,000,000, with an attendance of more than 20,000,000 children.

Is there anyone who will deny that the picture given above is not the best in a material sense than any system yet devised by man? Or will deny that this has not happened directly as the result of political democracy and a popular education which has developed under it? Admittedly it is not perfect and that there is much injustice, but there is much more among the bourgeoisie, or middle class. Besides, does anyone know of anything "perfect" on this earth? Perfection is a relative term and depends on conception. Conceptions rise as we attain. Are we willing to admit however that conditions will be any better in a communism brought about through violence, which Dr. Warbasse says is inevitable, allusion to the violent introduction of which he so thinly covers? Is he willing to have his material and political destinies controlled by Morris Hilquit, Meyer London, Bela Kun, Leon Trotzky, Rabbi Magnes, Peter Bianki and others of like stamp?

This reply was intended to be destructive and not constructive and yet one has no right to busy himself with the former at the expense of the latter.

If it is desirable for the State to establish either directly or through private agencies a system of sickness insurance for *all* who desire it and who will pay the premiums (not for the benefit of less than 16% who belong to a definite class, and who obtain something for nothing by having the premiums paid for them) I see no objection to it. But I feel that before such proposals are seriously entertained, it will be necessary to examine closely, be certain that Prussianism and Prussian ideals are not the actuating motives, and that the industrious workers of society are not called upon to support and give something for nothing to those foreign born elements in our body politic who are not in sympathy with our ideals, religion, or institutions, and whose incapacity has resulted from sexual license, hereditary animosities, and racial and religious hatred.



CORRESPONDENCE



To the Editor—Health Insurance:

Let us look into the so-called Health Insurance situation as it appears to the writer at the present time.

The medical profession may be divided as follows:

First, we have the radicals who do not believe in any form of Health Insurance, no matter how amended or how or by whom constructed.

Second, we have the conservatives who do not believe in Health Insurance generally speaking, but who believe that Health Insurance will come and the best way is to meet it along constructive lines, by the insertion of amendments, etc. in proposed bills so that the interests of the medical men may be safeguarded.

Third, we have the medical men, few in number, who really believe in compulsory Health Insurance.

The proponents of Health Insurance say that proposing and adopting amendments to the Health Insurance bill indicates that the medical profession is in favor of Health Insurance. On the face of it this would appear to be the case, as a constructive, conciliatory attitude indicates willingness to enter into the idea. The majority of the delegates sent to Syracuse by the medical societies of the counties of Kings and New York were in favor of Health Insurance along these lines. The Guild of the allied societies in the County of Kings is working along these lines. Yet the Medical society of the State of New York and the county societies of Kings and New York have adopted resolutions absolutely condemning compulsory Health Insurance.

The whole program at the last Syracuse medical meeting was along the line of conciliatory, constructive, compulsory Health Insurance.

First, the address of the senator, who proposed the bill in the senate, in the House of Delegates. Second, the opening address of the president of the Rockefeller Foundation. Third, the defeat as President of the radical who had declared himself against compulsory Health Insurance. There was one bright spot and one only: the delegates of the American Medical Association were instructed to vote against compulsory Health Insurance and oppose it in every way.

To sum up the situation we may say: there never was a good compulsory Health Insurance Bill, there is no good compulsory Health Insurance Bill, and there never will be a good compulsory Health Insurance Bill. The people will not receive the best services of the best medical men in the profession but will receive about the

average services which at present they receive through contract lodge doctoring. It will cost more to run compulsory Health Insurance in this state than the medical profession at present receive from all sources. Compulsory Health Insurance is a sham, a pretense, a masquerade. The wolf in sheep's clothing. The people do not want it. The professions and allied interests do not want it. Politicians gave it birth. Compulsory Health Insurance so called is no health insurance at all, but is on the contrary really and substantially poor relief and sick benefit. Why masquerade it under the name of Health Insurance? Why not call it what it is in reality, viz: poor relief and sick benefit?

Yours very truly,
ROBERT E. COUGHLIN, M. D.

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WAR AND CIVIL NEUROSES—A COMPARISON.

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Brooklyn.

WE are all aware of the driving power of instinct, and the more primal the instinct the greater the force resulting therefrom. The two most essentially primitive are self-preservation and the propagation of the species, both of them plainly disclosed in the very beginnings of animal life, and less clearly discerned in man, who with advancing civilization has learned to restrain or control these impulses. On the former rests the responsibility of the development of by far the higher percentage of the war neuroses, and on the latter a large number of the cases in civil life. The author at the outset desires to disclaim allegiance to the Freudists, recognizing both the elements of truth in their teachings and more particularly the dangers besetting an enthusiastic insistence on a sexual basis for a functional disease in a case entirely undisturbed by sex.

At the time of the signing of the armistice there was a report current that all cases of shell shock immediately recovered. This statement was received with an admixture of disbelief, surprise, humor and pathos proportionately to the amount of education in matters psychic possessed by the individuals discussing the question. When one considers the number of returned invalids who may have in some degree recovered their equilibrium through an entirely unconscious relief that the terrific struggle was at last at an end and who thereby among their acquaintances are under the odium of being malingerers or slackers, it truly becomes pathetic. Then again the recognition of the primary fact that, though psychic in origin, it is a disease nevertheless, is among the laity and, it is regretted, occasionally among the profession, insecure or lacking.

Without question of doubt the war neuroses are identical with the civil neuroses as to etiology, symptomatology, course, treatment, and prognosis. The one essential difference in the army is the greater number of cases characterized by an acute onset, the reason for which is quite apparent when we study the factors entering into the causation of the disease.

Let us consider the problem biologically, likening the growth of a neurosis to a healthy plant. Several elements combine to the normal development of vegetable life.

First, soil of some nature must be provided. The better this is

adapted in quality to the life of the particular plant in question the more vigorously will the latter flourish. Secondly, fertilization of this soil either by natural or artificial means assists materially. Finally a seed must "fall upon the good ground."

The psychological equivalent of the first factor is the same in both military and civil life. It is the peculiar mental attitude of the neurotic existing previous to the onset of the disease, which permits of the lodgement and subsequent growth of pathological ideas, the so-called "psychopathic soil." It is almost invariably due to faulty upbringing, recognizable in such remarks as "my mother always said I was a very nervous child" (one can readily picture the mother making this proud statement to a neighbor in the child's presence). Or "both mother and myself are afraid of thunder and lightning. I can remember when I was very young we used to hide in the clothes-closet together." Frequent repetition of the idea in the developing child's mind is a marked influence, though this is not a necessary condition as was proven by a case of the author's. The patient, a married man of thirty-eight, perfect physically, had never had normal intercourse because of the growth of a mental conflict originating in his overhearing his parents discussing him when a lad. His father remarked, "I do not believe he can ever grow to manhood, his sexual organs are so small." In this connection it is interesting to note that an individual possessed of a keen sense of humor rarely if ever presents the proper mentality for the development of these functional troubles.

As stated above, the civil neuroses and the war neuroses are alike in having the "soil" prepared. The second factor may or may not be similar but *the mechanism is the same in either event*, that is to say some psychopathological condition entering into the situation retains it in a state of agitation. This particular quality sometimes is of a physical nature and sometimes of purely psychic origin. Coitus interruptus is the most common of the physical causes but of course possesses a great many psychological elements in addition. The conflict developed here is very readily understood by the most casual. At the very moment when the consummation of the natural sexual impulse is at hand and the emotional desire is greatest, the latter must be overcome by the imminent knowledge and fear of impregnation. Whether this fear is born of love of the consort and the vicissitudes and uncertainties of child-bearing, or the less worthy desire just not to have offspring, is merely a matter of degree. This particular of desire, possibly the strongest of all, is mastered by fear, the sexual act is interrupted by the will of the individual, and the resultant mental conflict is evident.

As an instance of a mental conflict *per se* there is one we may term "mental scab scratching." For example a Liberty bond salesman has a certain number of calls to make and is doubtful whether to visit first A, B and C or to go in an opposite direction and start with Z, Y and X. Having deliberately chosen and proceeded upon his way to see A, B and C., and having been more or less unfortunate in his choice, the following day he plagues himself by attempting for no purpose whatsoever to discover whether if he had stopped at the offices of Z, Y and X first, they would have been in at the time he called. This inquiry achieves but one result, an irritation at the knowledge that his selection had not been a wise one; nevertheless he pursues this absurd course day after day.

At the front the men are under practically a continuous strain, both physical and mental. Fatigue is very important as a contributing cause, and the varieties of mental strain are legion. Fatigue is complicated in the trenches by many factors. The unit may have endured a long, cold march previous to its arrival at the front. A continual bombardment of the position may have precluded the opportunity for rest. There may have been a lack of warm food and indeed a shortage of food. It may be that an attack has been ordered early the following morning. One can readily imagine the *physical* reactions of the situation outlined above and its resultant mental strain. Then, too, the present day trench warfare is as I once heard it expressed "so dammed impersonal" that the individual seldom has the privilege of giving physical vent to anger, an emotion which can only be discharged by personal hand-to-hand combat. One cannot be enraged at an unseen line of men or the effectual deliberateness of a bombardment from guns miles away—at least not with any amount of satisfaction.

Strongest of the emotional reactions is fear in all its manifestations: Fear of physical injury or death with horror at the possibility of terrible mutilation. Revulsion at sights that must be witnessed or against duties made necessary by military exigencies: Revolt at criticism by one's superiors: Fear that one will not comfort oneself creditably in the face of danger. The latter feature is without doubt the one which causes shell shock to appear so frequently among non-commissioned officers who are chosen particularly for their bravery. They naturally are under a heavier strain than the others and are continually on the alert lest they may perform some act which would be looked upon with disfavor by the members of the company. All the disagreeable and unpleasant thoughts must be suppressed by the individual, officer or private, for the good of the service. The braver the conquering of a fear that exists, the more nervous energy is requisite for its suppression. Indeed it is a fact that often the soldier will "carry on" in spite of his travail and it becomes necessary for the officer in command to report the case. Mott says "Of even greater importance than the extrinsic conditions in the causation of military unfitness from exposure to shell fire are the intrinsic conditions, for if there is an inborn timorous or neurotic disposition, or an inborn or acquired neuropathic or psychopathic taint, causing a *locus minoris resistentiae* in the central nervous system, it necessarily follows that such a one will be unable to stand the terrifying effects of shell fire and the stress of trench warfare."

A rather strange though common state is fear of fear. This is frequently seen in civil life. The patient is afraid of something indefinable. The thing, however, possesses qualities which render it fearsome; and this very lack of definiteness accentuates the unpleasant uncertainty which the subject feels in regard to it. Fear of the unknown invariably reduces itself to "fear of fear."

Coming now to the actual cause of the condition, which we have likened to a seed, we discover a number of facts. In soldiers the onset of the attack varies greatly. Early in the war the term "shell shock" unfortunately came into vogue. It would indicate that the shock of an exploding shell initiated the symptoms, and its use was unfortunate in that it expressed so much to the uninformed on the one hand, and was misleading in addition. Often a patient will

describe the bursting of a shell just before he became unconscious or even will assert that his position had been under shellfire for several days, while as a matter of fact it is certain that no explosions had occurred in his vicinity for weeks. Another well-known circumstance is that war shock afflicts soldiers who have never been under shell fire, indeed who have never even left home—the so-called “anticipatory neurosis.”

A quick word from a displeased commanding officer may be a sufficient seed. This is peculiarly emphasized in the varying percentages of the disease in different units. The line officers who, when possible, handle the men as individuals obtain noticeable results through a word of sympathy here, firmness there, and with a third even a confidential sharing of the whispered secret, “I am just as badly scared as you are.” Wonders are worked both as regards the question of morale and the prevention of neuroses.

In civil life it is similar. A harsh word from one of the family, the witnessing of a terror-inspiring accident, or indeed a psychic shock of any sort providing that it be a shock, is sufficient to initiate a nervous functional disorder. In both civil and military life an injury may accompany the disease but is not a necessary feature.

In this connection there are several truths that have been pointed out by Dercum in his address before the American Neurological Association at Atlantic City last year. The first is that trauma unaccompanied by fright produces no hysteroid symptoms. This is evidenced by the lack of psychic disturbances following injury during sleep or surgical anaesthesia, and the same lack in accidents necessarily accompanying vigorous sports such as football and baseball or in gymnasium exercises. Again, trauma undoubtedly associated with fright, in the absence of the psychopathic soil fails to develop hysteria, as is witnessed by the rarity of the affection in the police force, city firemen, locomotive engineers, and structural iron-workers. Forsythe says “the occurrence of a definite neurosis is to be looked for only in psychopathic individuals, the onset representing the collapse of what is already unsound.”

It has been found that in numerous cases there have been minute hemorrhages into the brain and spinal cord. This, however, has no connection with the disease in question. It is a physical result of the atmospheric conditions produced by the alternating waves of compression and decompression originating at the site of explosion, and passing the point at which the victim chanced to be. It is apparent that the degree of the effect varies with his distance from the exploding shell. It has been asserted that death may be caused instantly by a shell bursting near a man though a most exhaustive search fails to disclose any anatomical cause for his death. However the genetic factors of a purely psychic reaction and the one outlined above may be identical and it is therefor reasonable to assume that the two may be found in a single individual. This fact is so recognized by Major Thomas W. Salmon, Medical Officers Reserve Corps, United States Army, who divides the different conditions designated as “shell shock” into several clinical and etiological groups:

First should be considered cases in which the patients have been actually exposed to the effects of high explosives.

1. Not infrequently, just how often it is impossible to say, exploding shells or mines cause death without external signs of in-

jury. Apparently death in these cases is sometimes due to damage to the central nervous system.

2. In another group of cases severe neurological symptoms follow burial or concussion by explosions in characteristic syndromes suggesting the operation of mechanical factors. Concussion, in aerial compression and the rapid decompression following it, "gassing" from the drift gases (carbon monoxide and oxides of nitrogen) generated by the explosion and other purely mechanical effects of shell explosion may result in transitory or permanent neurological symptoms of a type unfamiliar in the neuroses.

There can be no question of the propriety of supplying the term "shell shock" to these two groups of cases if a specific term is required.

3. Another group of cases, among those exposed to shell fire, includes patients in whom, while there may or may not be damage to the central nervous system, the symptoms are those of neuroses familiar in civil practice even though colored in a very distinctive way by the precipitating cause. In this group of cases, in which there is possibility but no proof of damage to the central nervous system, the symptoms present which might be attributable to such damage are quite overshadowed by those characteristic of the neuroses.

It is about these cases that much controversy exists. Mott includes them in his group of "injuries of the central nervous system without visible injury," holding that a physical or chemical change at present unknown to us must underlie such striking disabilities. Others give less weight to the factor of physical damage and yet recognize its existence and reconcile the wide range of neurotic symptoms with the very minute amount of damage which may exist by terming these cases "traumatic neuroses." Others again feel that psychogenetic factors determine not only the continuing neurosis but even the initial unconsciousness and special sense disturbances.

4. There is a group of cases in which even the slightest damage to the central nervous system from the direct effects of explosions is exceedingly improbable, the patients being exposed only to conditions to which hundreds of their comrades who develop no symptoms are exposed.

With a certain amount of reluctance we approach the discussion of symptomatology. The uncertainty exists in what to include and what to exclude. We would like to be content with the comment that hysteria can simulate any known disease, but emphasis needs be placed upon the word "known." The neurosis is of necessity founded upon a previous experience, though it seems it were well nigh impossible for the patient to have possessed even an unconscious knowledge sufficient to provide him with the numerous symptoms expressed by the neurosis. In the great number of instances, however, there is at least one tiny fragment that does not find a place in the symptom complex. Witness a woman the writer observed who came into the hospital on the ambulance with a provisional diagnosis of lock-jaw. She was examined by a number of the medical staff, the diagnosis of tetanus confirmed, and the patient referred to the surgical service for treatment. All of the surgeons who saw her accepted the diagnosis and she received an inoculation of antitetanic serum. Not reacting to the latter in the

customary manner, a neurological examination was suggested. The patient was very evidently a case of tetany, the teeth could be pried apart but half an inch. Percussion over any part of the body produced violent contractions. Both Trousseau's sign and Chvostek's sign were present. The deep tendon reflexes were greatly exaggerated, but the little jig-saw piece which had no place in the picture in this instance was that percussion over the triceps tendon produced a tetanic flexion of the forearm instead of an extension. A fine-tooth comb examination disclosed further evidence along the same lines, and under suggestive treatment recovery ensued.

A noticeable feature of these cases, especially in military life, is the relation the various types of symptoms bear to the patient's social status. A person in the lower walks of life will have more grossly apparent disability such as a hemiplegia, contractions, heminaesthesia, etc., while among the members of the upper class the psychic symptoms are more prevalent—unconsciousness, amnesia, confusional states. An analagous relation exists in childhood. The younger the patient, (i. e., the less educated) the more likely are functional upsets to assume paralytic forms rather than the more complicated disturbances. The same differentiation in the organs of special sense is to be anticipated, blindness and deafness being more common than aesthetic affections such as loss of taste or anosmia.

Symptoms may result from the impairment, loss, or disturbance of function of any nerve or group of nerves, or of any muscle or group of muscles. The identical symptoms are seen in both military and civil life, be they headaches, loss of consciousness, neuralgic pains, loss of efficiency, or mental, motor, or sensory changes, the sole differentiation being in the acuteness of onset. The writer has never considered of value a table outlining the relative percentages of the various functional troubles found in these cases. To know that tinnitus occurs in fourteen percent of the neuroses and mutism in only eleven may be interesting but not instructive.

As mentioned above the symptomatology is dependent to a great degree upon previous experiences and the particular mental picture impressed on the patient's mind at the time of the psychic shock. A man who has seen a companion's leg blown off develops a disturbance of gait. A young girl who has not been told of the impending onset of the menstrual function and is terrified thereby exhibits sexual difficulties or is diffident in the presence of the opposite sex. A clerk who has been robbed of money entrusted to his care subsequently has an obsession that he is being followed on the street. A soldier resting in a dugout and buried by a shell-explosion, who is unable to attract anyone's attention, shout as he may, will develop a speech disturbance. The four examples detailed above have come under the writer's observation, and are very evidently a direct reaction of cause and effect. According to Foster Kennedy practically all injuries to the extremities are accompanied, for a short period at least, by palsy of the limb, quite apart from any organic nerve injury.

Let us now recount, briefly, the more important of the symptoms, first quoting a brilliantly concise paragraph from Salmon which dissipates much of the haze surrounding these functional disorders:

"The psychological basis of the neuroses is an elaboration with endless variations of the one central theme: escape from an intolerable situation in real life to one made tolerable by the neurosis."

Stupör, loss of consciousness, and amnesia are the most common of the mental states, the period of disturbance varying widely. Occasionally a man will be unable to make the slightest mental effort and the attendant results are valueless. The recovery of the faculties frequently is as abrupt as the onset.

In the motor sphere we encounter almost universally in the initial stages a continuous tremor of the whole body, with a palsy of some type.

Sensorially the symptom of greatest frequency is headache, and various pains elsewhere may or may not be present. Anaesthesias are exceedingly common.

Reviewing a large number of cases of war shock we discover more or less of a type. A number of features exist in the symptom complex which are worthy of mention not from an individual standpoint but because of the frequency of their occurrence in groups. The average case of "shell shock" exhibits tremors, anxious confusion, insomnia or sleep disturbed by "battle dreams," pain in some part of the body, "light-headedness," vasomotor disturbances, inefficiency of fixing attention, dyspnoea, palpitation, and fatigue on exertion out of all proportion to the amount of effort. What, on the other hand, do we find in the civil neuroses? Identically the same. Possibly in the average case as we see it during peace there are fewer symptoms present at one time though they are precisely the same in manifestation and grouping, dependent upon causation. During the war the civil neurosis exhibits a larger group of symptoms. In the shell shocked soldier it is still larger. The greatest difficulty with the uninitiated is to credit the visible physical signs to the psychic source. However, after careful investigation one cannot escape conviction as to the purely emotional origin of a vast category of physical phenomena.

With this discursive survey of the symptomatology let us proceed to the consideration of treatment, which consists primarily of a careful study of the individual case. It is analogous to the treatment of a cerebral new growth. Investigation should be made as to its presence, its location, size and shape. Then it should be dissected out and finally removed. The preventive rationale in military life is essentially educational. A frank logical discussion of the basic causation of neuroses frequently forestalls their occurrence. When a soldier anticipates his fear, knows his companions are terrified as well, and knows also that they are aware of his fright, the necessity for a repression is obviated and the danger of a functional disturbance is rendered much less likely. After the development of a neurosis, particular efforts should be instituted as promptly as possible to prevent the fixation of the false idea, especially since the period immediately following the onset of the trouble is an interval of exaggerated susceptibility, when the medical officer's injudicious inquiry or concern over the illness may set the symptoms, or on the other hand careful suggestion of an alert superior may be followed by the acceptance by the patient's mind of the fact that he is able to "carry on." As a result his courage and determination, temporarily undermined by his new experiences, return. The economic value of not having these cases accumulate

in the base hospitals is obvious. The essential duty of those in charge is to impress upon the patient that his psychical disturbances are not indicative of a failing mentality and there exists not the least possibility of his going insane, and, what is more, that the condition is curable. He should be informed that the results of his logical reasoning are false because based upon false premises and not because of defects in the process of reasoning. One thing is to be guarded against, too close application to the effort of correcting the visible faults in place of readjusting the patient's relations with his surroundings. It is the latter which is out of gear and not merely the mechanism of walking, of talking, or of thinking. Specially is this true in civil life, and it would be as absurd for an internist to direct his attention merely to the alleviation of a typhoid patient's headache as for a psychologist to attempt to correct the psychic disability without an understanding of the individual personality.

As regards methods, Pearce Bailey naively remarks "the patient is put at his ease, assured he will suffer no pain, made to relax, and in some way or another made to move the part that is paralyzed, made to speak, to hear, to cease tremors." *In some way or another* seems a rather vague therapeutic measure. On a careful consideration, however, may not these words indicate first the object, and second the difficulties of the treatment? That is to say, the method should be individualistic, adapted to the various needs of the victims, and the possibilities painstakingly exhausted if need be by both patient and physician. Some authors insist that once the treatment is initiated the effort should not cease up to the time complete cure is established, that the medical officer must remain with the sick soldier until he is well whether it be an hour or a day. One cannot resist speculating as to the efficiency of the army surgeon after he has had two or three difficult cases. In civil life a technique such as the above is obviously impossible, but no matter what the method, suggestion and persuasion is the keystone of the arch.

The French make use of a system termed torpillage, and the Germans on called Ueberrumpelung. This is persuasion in a very crude sense and is impossible elsewhere than in the army under discipline. Galvanism is applied in steadily increasing amounts and commands given with a strong military flavor to cease trembling or to move the paralyzed limb, until the patient discovers that it is easier to accede than to endure further torture. This discloses the answer to a moot question that without doubt psychic disturbances may disappear through punishment alone. There is a certain value to the direct stimulation of a paretic muscle by faradism which demonstrates to the patient by visible faults in place of readjusting the patient's relations with is unlike the galvanic application just mentioned and is theoretically more correct, for the invalid takes a part in the movement. Along the lines of chastisement are the isolation rooms found in all the French centers into which refractory patients, or let us better say refractory neuroses, are placed without the little luxuries and means of entertainment which might be enjoyed elsewhere. Care is taken that the men know of the existence of these rooms when they are brought to the base hospital.

The Canadians have another method of high persuasive power in obstinate cases. This is the topical use of concentrated hydrochloric acid every two or three days to the extent of five or six

applications. This is particularly beneficial in cases with a trench fever basis with special reference to sciatica. I am told by the medical officers that in patients so sensitive that the bedclothes hurt their limbs, a second treatment occasionally works such marvels that the legs can be slapped.

As regards physical measures such as mechanical appliances, electricity, massage, and hydrotherapy, all are psychologically wrong as a rule, for a therapeutic procedure which tends to direct the patient's attention to his disability is essentially bad. The disability should be ignored as though it were non-existent. This is the reason that electricity frequently used as a placebo in general practice so often results in the more definite fixation of the symptoms. It is an axiom that any device in which the patient himself has not a part is poor therapy.

Personally the author uses analogy to a considerable degree. After all, it is a matter of education or reeducation, and the existence of a psychoneurosis is evidence of a throwback in a certain measure to a childish mentality. It is infantile in mechanism and should be so considered. As one's memory is usually visual, pictures assist in the formation of a lasting concept. Our earliest "readers" contained such startling comments as "this is a dog," "this is a cat," but without the illustrations above these sentences, our educative processes would have been considerably slower. So in the re-educative treatment, analogies, metaphors, and similes should be constantly drawn in order that the patient through the word pictures may be better able to construct a permanent foundation to take the place of the false ideas which are at the bottom of the incorrect reasoning which, in turn, is responsible for the psychoneurosis.

A mental conflict is made up of three elements as shown in the appended diagram, in the construction of which simplicity has been made the keynote. A thought or idea [represented by (I.)] is a simple mental act, harmless in itself. A complex [represented by (I.+E.)] is an idea plus an associated emotion. It is potentially dangerous. A conflict is the result of two opposing complexes, [represented by (C.)].

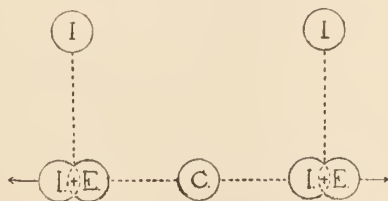


Diagram of a Mental Conflict.

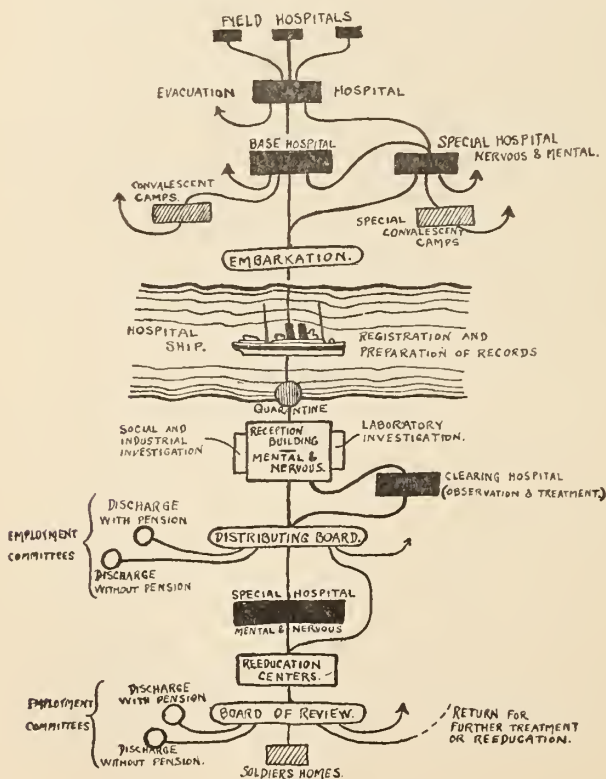
Idea, indicated by (I). Complex, an idea plus an emotion, indicated by (I-E). Conflict, the result of opposing Complexes (C).

Let us consider the question of insomnia and the mechanics involved. Assume that on the left of the diagram is the idea of wakefulness (in I.) and below it as a complex is the idea of wakefulness plus the fear of a sleepless night; on the right of the diagram is the idea of sleep and below as a complex this idea associated with the emotion of desire. These two complexes pulling in opposite

directions produce a mental conflict which precludes repose and the insomnia continues. In chemistry, frequently the removal of a single element from an insoluble compound alters it into a soluble one. In like manner the removal of the emotional content from either one of the two complexes reduces the latter into a simple idea, which, as stated above, is quite harmless. Thus is the conflict rendered capable of solution and the mind clears. In the above instance the easiest method of approach is to rid oneself of the desire to sleep by deliberately cultivating indifference. It is a fact that if a person does not court sleep, sleep will come unbidden. This has been demonstrated time and again. The patient should be convinced that an entire night's unconsciousness is not vital and taught proper physical and mental relaxation. In an insomnia of this type, what possible virtue can rest in the administration of bromides, opiates, or other soporifics, when mental poise is the goal rather than mere sleep itself?

CAREER OF SOLDIERS DISABLED THROUGH NERVOUS OR MENTAL DISEASE.

(Arrows indicate return to the colors.)



Blocks of solid black indicate Hospitals. Shaded blocks indicate Stations where medical treatment may be obtained, if necessary.

(Modified diagram from Mental Hygiene, Vol. 1, No. 3)

The psychology and psychopathology must be explained to the patient in simple non-technical language with all the force of which the personality of the physician is capable. Absolute frankness and sincerity must exist between the two, every step explained by the one and understood by the other so that nothing unexpected causes the patient shock. The physician should never exhibit surprise nor manifest disappointment. The patient can withhold no thought from the physician, nor the latter dissimulate in the slightest degree for a discovery of this may render valueless any subsequent effort.

A year ago I had the privilege of investigating the cases of functional nervous disease in the military hospitals in both Montreal and Toronto. It was quite evident that the best results were obtained by the medical officers who used most effectively the full power of their personality (assuming of course the possession of special neurological training) irrespective of age or rank. Their task was made easier through the efforts of Lieutenant-Colonel Colin K. Russell who obtained a ruling that hysteria is not a pensionable disease. This information passed on to the patient is assisting in the cure of a considerable number. They are also told that as soon as improvement is observed they will be given a six days' leave of absence; and for counter suggestion hints are dropped as to the lack of economy in the possession of a neurosis for by working hard under strict military discipline one can earn but \$1.10 per day doing what would ordinarily net him four or five times that amount. The knowledge of the fact must come to the invalid's recognition in such way as not to give offense. Previous to the enactment above mentioned many difficulties existed, such as do and will continue to exist in the United States Army. For instance, many men are returned who cannot be classified as needing hospital care, are fit only for sedentary work, and are anxious to return to civilian life. They are keen for a discharge and do not, therefore, claim disability. Their papers are given them and shortly after these are in their possession they or some of their anxious friends discover a gradually increasing set of symptoms functional in origin. These are finally of sufficient severity to cause them to seek a pension.

It is this display of sympathy that is so dangerous. The returned soldier's companions ask with solicitude as to his welfare, and with regretfully worded comments compare his present sad lot with his entire good health previous to entering the service. Quoting Farrar in regard to pampering a person into a hard-set neurosis: "It is conceded that the worst possible place to treat a case of war neurosis is in his own home town where in so far especially as the more striking objective symptoms are concerned, the sympathetic wonderment and commiseration of friends create a positive demand which the ideogenetic factors of the patient's illness continues faithfully to supply."

What shall we do in this matter? Shall we deliberately encourage the development or the continuance of functional nervous disorders? The present compensation laws for military disability have a trend in this direction. Art. III, Section 300, W. R. I., Act of October 6th, 1917, provides that officers and enlisted men shall be assumed through the fact of their acceptance by the Medical Officer to have been in perfect health at the time of their enrollment. Therefore it follows that a physical disability, functional or not, affecting a soldier subsequent to said enrollment must of necessity be

a pensionable result of service, and he is entitled to compensation whether he develops epilepsy, a hysterical paralysis, functional mental disease, or a true insanity. Consider the difficulties of our own Medical Corps endeavoring to rid a patient of a psychoneurosis who unconsciously realizes that upon the persistence of the symptoms depends his compensation.

Compare the above illogical procedure with the French method of awarding gratuities. For the benefit of the patient it is very definitely and finally settled that a psychoneurosis is not a disability warranting compensation, that no pension will be paid, and further the man will not be discharged until such disability disappears. If an unquestioned wound is or has been associated, the functional disturbance is not to be taken into consideration and must not exist at the time of discharge. The plans of the Royal Army Medical Corps are practically identical. The Canadians have lately added still a further enactment to guard the patient against himself, i. e. in the event of the return of a functional disability subsequent to his honorable release from service, he is to be returned as an enlisted soldier to the neurological center at which he had been previously cared for. Legislation of this type has accomplished miracles.

As yet no comment has been made as to the value of hypnotism. The common opinion is that no better results are obtained through hypnosis than are possible with waking suggestion. This is particularly true in cases presenting neurasthenic symptoms. As mentioned previously the matter is really one of reeducation and more can be accomplished with a conscious patient. Secondly, and what is more important, relapses are more common following hypnotic treatment. A paralytic arm can be easily cured but there is no guarantee that the opposite side may not suffer a like condition within a very short period. The hypnotist endeavors to provide against all possibilities of this nature, but it is evident he cannot cover the whole ground and will be certain to leave something unconsidered. Whereas with psychanalysis the patient through his added knowledge is enabled to erect his own defences in his own way.

In conclusion, I advise that the physician urge the relatives and friends of a returned soldier to look upon even the bare possibility of his having a functional nervous disease as they would leprosy. Refrain from undue sympathy and coddling care. Withhold the exhibition of unrestrained emotion. Beware of anxious concern. Treat the disability as though it were non-existent whether it be soldier or civilian.

SYMPOSIUM ON NARCOTIC DRUG ADDICTION.

THE ATTITUDE OF THE HEALTH DEPARTMENT.

Royal S. Copeland, M. D., Health Commissioner.

AT the meeting of the Medical Society of the County of Kings, held on Tuesday evening, May 20, the program consisted of papers presented by authorities on the legal, moral and economic phases of the narcotic question. Since the Federal authorities arrested several physicians for prescribing and druggists for dispensing morphine, cocaine and heroin, considerable confusion, particularly among the members of the medical profession, has been apparent. The President of the Society, in order to give the members first-hand information, had prepared the following program:

1. "The Problem of the Narcotic Addict from the Public Health Standpoint"—Royal S. Copeland, M. D., Commissioner of Health.
2. "The Law and the Narcotic Addict"—Cornelius F. Collins, Justice, Special Sessions, New York County.
3. "The New York State Narcotic Commission"—Walter Herrick, Commissioner, New York State Narcotic Commission.
4. "Medical Practice as Affected by the Harrison Law"—Ben A. Matthews, Asst. U. S. Attorney, Southern District.

Commissioner Herrick was unable to be present but was represented by Sara Graham-Mulhall, deputy commissioner.

Commissioner Copeland stated that he had been talking on the subject of drug addiction for the last six months because he considers it a serious problem which, with the advent of prohibition, is likely to assume an even more serious aspect.

Dr. Copeland said in part:

"Authorities disagree regarding the extent of narcotic addiction, but we do not feel that we are far wrong when we state that there are in New York City not less than 100,000 such persons.

"Judging from the federal report regarding the consumption of opium, there were consumed in the United States during the year 1918, 476,000 pounds of opium. This would make about 33 grains per capita. No other country in which records are kept approached these figures. The largest quantity in any other country not exceeding four grains per capita. Government authorities state that there are more than one million slaves to drugs in this country. Our proportion in New York City, according to population would be about 60,000, but addiction is at its worst in the larger cities and our figures are undoubtedly much greater.

"On previous occasions I have stated that in New York City thirty-three druggists in one month sold 2600 ounces of drugs, that is 20 grains a day for the thirty days of the month for two thousand persons. One drug store alone sold 585 ounces, this the record for thirty-three of the 2600 drug stores in the Greater City.

"Commissioner Herrick has stated that he thinks that there are not 5,000 such persons in this city. Personally, I think that he is greatly underestimating the importance of this matter. We have had only a little more than five weeks' experience with a Narcotic

Relief Station and already have treated two thousand addicts. If this were the entire number the problem would be bad enough.

"If one will visit this Relief Station he will see an aggregation of wasted lives, human wrecks, persons who, when they demand the drug are a distinct menace to every class of society.

"The Narcotic Relief Station was opened on April 10, 1919, and in the thirty-seven days it has been in operation there have been registered 1,886 new applicants, and there have been made 22,783 prescriptions. Only morphine and heroin have been furnished the addicts. Sixty-five ounces of morphia and 585 ounces of heroin have been dispensed.

"Judging from this experience and comparing the same with the sales of narcotics in this city, simple arithmetic demonstrates to the practical mind that all is not well and it is for this reason that we want to present to your facts in order to get your cooperation.

"A study of the histories of the applicants shows the following particulars:

Color Group	Age Distribution
White, 1734	— 19-21 — 31
Colored, 152	21-25 — 722
Sex Group	26-30 — 590
—Male, 1706	31-40 — 426
Female, 180	40 — 117

Reasons assigned for Acquiring Habit

Bad Associations — 1223	Insomnia — 8
Relief from Pain— 182	Illness — 283
Curiosity — 72	Alcohol — 7
Family trouble — 12	Smoking
Discouraged — 3	Opium — 50
Pleasure — 30	

Drug Used

— Morphine — 279	M. and C. — 33
M. and H. — 26	Cocaine — 4
Heroin — 1333	H. and C. — 211

Length of Time Using Drug

— 1-2 yrs. — 94	10-11 yrs. — 37
2-3 " — 138	11-13 " — 57
3-4 " — 268	13-15 " — 29
4-5 " — 189	15-17 " — 39
5-6 " — 282	17-19 " — 29
6-7 " — 321	20-30 " — 38
7-8 " — 177	30-40 " — 8
9-10 " — 180	

"There are four sources of supply for the drug addict in this city: (1) The Narcotic Relief Station of Department of Health; (2) The honest doctor and druggist; (3) the bootlegger; (4) the dishonest druggist and doctor. The latter two cases do not con-

cern us because the Federal authorities and the local police have this problem to look after and they are going to do it.

"There are fifty or sixty doctors in this city who are known to be engaged in this traffic and I advise them now that they had better start for foreign ports, as trouble is coming their way.

"One of our Federal authorities states that one of these doctors issued 271 prescriptions in two hours and his office furniture consisted of an empty dry-goods box and a chair. He had no intentions of examining and made no pretense at physical wants. This fellow was charging 10, 25 and 50 cents for prescriptions according to the amount of drug prescribed. There is not language strong enough suitably to characterize this rascality. But the medical profession is not alone in this improper practice. We have evidence that a certain druggist in one month dispensed 585 ounces, charging ten cents a grain which gives a profit of \$30 on the ounce or twenty thousand dollars a month, or a quarter of a million dollars a year. That, in my opinion, is one very substantial reason why there are drug addicts.

"The wholesale distribution of one habit-forming drug in January, 1919, in this city exceeded the total for the entire year of 1918, and so great was the demand in February, in excess of January, that the manufacturers had to limit the amount sold to the wholesaler.

"The police authorities inform us that a conservative estimate shows that there are 10,000 drug addicts in the underworld in this city: Self-preservation is Nature's first law and if there were no other legal or moral reasons for consideration of the matter of narcotic regulation, this alone would be sufficient for the prudent citizen to consider carefully. Only recently one of these addicts killed a citizen on one of our popular thoroughfares.

"The problem before us makes us inquire, 'What can we do?'

"With the present law giving the power of regulation to a special commission, the Department of Health is embarrassed, but if this commission will do four things we feel that we can cut the heart out of this monster. I, therefore, suggest the following: Let the Narcotic Commission define narcotic addiction, and require registration and identification and provide appropriate legislation. If it will do nothing else, this will aid us most materially.

"Every person traveling out of this country has to get a passport. This requires a photograph of the individual, a signature, and a brief description of the person. These victims of narcotic drugs should be required to have their passports. The passport would show on the face the photograph of the addict, the official registry, a brief description, color of hair, color of eyes, height, weight, complexion, identifying marks or scars. On the back would be ruled lines where the doctor would enter the name of the drug, date of dispensing and amount. These cards, changed monthly or periodically, would give identification to each addict.

"When a physician gave an addict his duplicate prescriptions, which later were delivered to a druggist for dispensing, these druggists would identify this individual. Should the individual change physicians, the last physician consulted could communicate with the previous medical attendant. In this way a complete check on the individual and his source of supply, together with the amount of drug obtained through proper channels would be checked.

"In the Narcotic Commission, or if you please in the office of the Department of Health, an index could be kept of the doctors prescribing and another of the addicts themselves. Thus you see it is absolutely necessary first—that we define narcotic addiction, second—prescribe regulations for registration and identification; third—provide for prescriptions in triplicate and, fourth—explain what the law contemplates in the words 'Good Faith.'

"In closing, I should like to call attention to the fact that in the first six months of 1918 Japan collected in export duties five million dollars from opium intended to be shipped into China. Thus it will be seen that this is not a local problem. Regardless of whether it is or not we must solve it for ourselves and for our own safety."

"Members of the medical profession of the Borough of Brooklyn, it is up to you to do your duty in this as you are doing your duty with every other disease. If you will, there will be no problem impossible of solution. Society will be protected, and the drug evil will be eliminated."

"THE LAW AND THE NARCOTIC ADDICT."

Hon. Cornelius F. Collins,

Justice, Court of Special Sessions, City of New York.

I ASSUMED tonight that I was merely to discuss the law in a general way without any form of prepared paper, and the request for me to open up the meeting comes rather unexpectedly. Nevertheless, perhaps the purpose for which I was invited here may serve to fulfill the object of opening up the meeting.

For the last five or six years I have been actively engaged in the preparation and development of the law up to the last statute. The growth of the evil had been so great in the underworld as to impress the necessity upon judges, district attorneys and all having to do with the courts that something had to be done to control the evil by statute. It is unnecessary for me to cover that period of the history of this thing for men like you, I assume, kept in touch with that general progress, but the original impulse for action on the part of the public officers was due to the fact that there was such a large number of addicts in the underworld, and this large number seemed to have come almost as an epidemic would. At first police, district attorneys and judges were shocked by the appearance of men arraigned on criminal offenses, and it was quite apparent that they were under the effects or influences of some sinister drug, and it was soon discovered what the drug was. At the time there was no law other than that which was contained in the Sanitary Code. The Cocaine Law was the first one passed, in 1913. It made possession a crime, of course, as well as dealing in it unlawfully. The enforcement of the Cocaine Law for possession of the drug caused a very large number of addicts of other drugs to develop. They were brought in and it was discovered that they had or were in possession of heroin, and at the time possession (of this drug)

was not a violation of the law. The next year, however, the Boylan Law was passed, and that made the possession of opium or any of its derivatives an offense. A little later the Harrison Law was passed, and you remember the intense excitement which prevailed at that time. The court calendars were very largely increased, hospitals were overrun, and there was perhaps a general panicky condition of the public mind on the subject of drugs; and there was perhaps a danger of hysterical legislation being enacted. Committees were appointed, some by the courts, some by civic bodies, and finally they were practically consolidated under one head in so far as the courts were concerned. The State Association of Magistrates and Justices appointed a committee, and they consulted and acted for the public. The Legislature appointed a committee to investigate the subject, with Senator Whitney as presiding officer. Investigations were conducted over a period of two years. The law was changed after the first year to correct certain defects which might have been charged up as clerical errors in the statute. Secondly, in the statute of 1917 there was a material change. Prior to 1917 it seemed as if the doctors got the impression that the prescribing of the drug itself was contrary to law, but whether they did get that impression or not, it is a well known fact that very little prescribing was done by the medical profession.

"There was a great deal of peddling in the underworld, and these peddlers were made up of the worst classes in our community. A very large number of them were criminals or ex-convicts. Of course, there were some who were not but they were all exceedingly unscrupulous. They obtained possession of the drug by various devices and schemes.

"The Harrison Law was in operation and the law of 1915 was in operation, but still the peddling was going on to an immense extent. Under the Federal Law it was necessary, as you know, for the physician to file an order blank to obtain the drug, but there was no requirement or law making it necessary to file an order blank by anybody in Canada or Mexico or any place other than the United States. In an effort to find out how the drug was being obtained it was discovered that large quantities were being distributed which were sold by wholesalers in America and simply shipped outside of the country somewhere and then sent back into the country again. Another method was said to be the stealing or appropriating of the drug on the part of employees of wholesalers who would sell it at an immense profit to these so-called peddlers. The third method was for an agent of the peddler to send a representative around from doctor to doctor who was willing to prescribe, and in that fashion a supply was obtained."

The judge in passing touched upon the high prices demanded of addicts by these peddlers for the drug, and went on to say:

"In doing this they did not confine their efforts to New York City, of course, but went outside of New York City as well to obtain the drug. It was said at the time that in certain parts of the South the drug was widely distributed and that it could be easily obtained there without the necessity of resorting to the means of smuggling it across the border as I have indicated, and

large quantities were obtained in Florida and Louisiana and brought on here."

The judge said, at this point, that these peddlers, in addition to violating the law by selling the drug itself, largely adulterated it and offered it in that form to those who were addicted to its use.

Referring to the manner in which the drug was supplied to addicts, the judge said:

"It was supplied sometimes in the form of what are known as 'decks,' that is, it was put up in small pieces of paper something like the small powders which are put up by druggists. These are called 'decks.' The underworld addict generally used the 'deck' by sniffing the contents of these small pieces of paper, but a large amount of it was used by the injection method. The largest part of it, however, was used by sniffing. Where it was used by hypodermic injection not alone were the ravages wrought brought about by the drug itself, but also by uncleanness in the administration of the drug; and in the hospitals and in the prisons and in the various places where they were being treated there were some revolting illustrations of this method of using the drug. Syphilitic subjects addicted to the use of the drug have been known to hand the needle to somebody else to use and it has happened that on occasions disease other than drug addiction was distributed by the means of dirty needles and the like.

"This, you can readily see, created quite a state of public mind and, as I said before, judges, district attorneys and others interested in this subject were awakened to the dangers of the situation, and although they become, like undertakers, who become callous to death, callous to criminal conditions and are not usually shocked by what they see in carrying out their function in life, still at that time they were thoroughly worked up and became actively interested in the seeking of additional legislation, and the 1917 Act directly and specifically provided that a record shall be kept by doctors who are treating and administering to patients. The effect of that has been that it has practically killed the underworld traffic so far as the peddler is concerned.

"A new evil sprung up, but this was not nearly as bad as the old one. The old evil of the peddler distributing the drug had other vices than the mere vice of drug addiction as regarded from the public standpoint. These were that peddlers of drugs, ex-convicts frequently, distributed the drug to victims of the drug habit on condition that that victim would render a service of a criminal nature as a condition precedent to receiving the drug, and in their eagerness to get it they would do anything and at other times they would give the drug, not on promise that something would be done, but they would get the addict under the influence of the drug and then use him for some nefarious purpose, so there were other things to be feared aside from the mere keeping up or spreading of the addiction.

"The 1917 statute largely remedied this situation, but the evil took a new turn when unscrupulous doctors began plying a trade in this direction.

"Raids were made by the federal officers and in some instances they found long lines of people waiting to get their

supply of the drug, and the quantities which the druggists distributed were so large that they could not have been at all for the purpose of following out the provision of the law in relation to treatment. It was just a substitute method of peddling. Men unworthy of the profession of which they were members had descended to this practice and pandered to the viciousness of some of the people who were getting the drug. Something had to be done to control this and then came what had been previously suggested, the so-called prescription blank, and today we have the order blank in the first instance."

Judge Collins then referred to the fact that it was discovered that some men were purchasing narcotics in different parts of the union and were not making a proper record or were making a false record, and that the effect of this was that the unscrupulous thereby avoided detection. Continuing, Judge Collins said:

"Under the new law anybody who sells the drug must be licensed; in other words, we control the output of the drug in New York State. The reason for that was because we could not otherwise control anybody outside of the state. We could not punish them under the state law, but could fix the law so that the drug could only be purchased by means of the filing of an order blank. In this way we can trace the drug, we know where it is distributed, and this (order blank) is filed with the State Board of Narcotic Control. This year there were some difficulties owing to the change in the gubernatorial office. That, unfortunately, caused some delay, but it is expected that this department of the state government would soon be in position to render the valuable service for which it was devised and which it was intended to lend. The federal prescription blank reaches the Department of Drug Control and in this way they are able to keep tabs on the quantity and extent of drug prescribing.

"I know a great deal of discussion has been had as to the quantity, and the question is: Are the figures exact? There have been wide differences of opinion as to what the figures are, varying from a very small fraction to a very large fraction. I had ventured the opinion that it was 1 per cent, rather going away from that to a larger figure, on representations made by men who had studied the subject. I am still inclined to stick to the one per cent, and I see by the report of the Federal Government Commission, made yesterday, that, in their judgment, the 1 per cent idea is very nearly correct. With 1 per cent (of the population), on an average, drug addicts we have a very serious problem to deal with. As I stated, it is quite a matter of speculation as to the percentage of drug addiction, but granted it is 1 per cent or a fraction less, it is a serious problem, and a problem that may be more serious in the future.

"It a moot question as to whether or not prohibition will give rise to an increase in the evil. Personally, I do not think there is justification for the belief that because prohibition comes there is sure to be an increase in the evil, but it is my positive opinion that unless wise legislation is enacted, both federal and state, on the subject there will be an increase in the evil as the result

of prohibition, in which event we will have further problems to contend with.

"Now, I have caused some figures to be provided for the County Courts in Manhattan, which speak volumes, in my judgment:

"We had in 1914, 1,415 cases of drug addicts; 1915, 1,563 cases; 1916, 1,686 cases; 1917, 1,283 cases; 1918, 436 cases; up to date this year, 125 cases. There was an increase in the evil in 1915 over 1914 of 6.2 per cent; 1916 over 1915, 19.1 per cent. There was a decrease in 1917 of 9.4 per cent, and in 1918 there was a decrease of 69 per cent.

"Now, as to the ages: between 16 and 21, 29.7 per cent were addicts; between 21 and 30, 33 per cent, showing 62.7 per cent between the ages of 16 and 30. Between the ages of 31 and 40, the percentage was 21.5. As to the sexes: 82.8 per cent were males and 17.2 per cent females.

"These figures show that the law wiped out the peddling and prevented the drug addicts of the underworld from obtaining a supply of the drug and keeping it up, and when the raids were made the other day, if it had not been for the intervention of Dr. Copeland and the Board of Health, we would have had a panic. Dr. Copeland saw what was going to happen and was prepared for it. It came a little sooner than it was expected. It came as a result of the raids, but when it did come he was prepared. The hospitals, they claimed, were overcrowded and were not in condition to take care of these people, and, in fact, had asked the courts to limit their commitments, so if it had not been for the precautions of the Department of Health of the City of New York we would have had a panic on our hands today. These men don't come into our courts because they obtain the drug on the prescription of a doctor, and it is to be expected that the patient is being treated for the purpose of effecting a cure. Of course, it is quite true that there may be a wide divergence of opinion in the medical profession as to the reduction method, or as to how far one should proceed on that, but whether there is a divergence of opinion or not, an addict should not be supplied absolutely for the reason of keeping him supplied with the drug. In other words, the element of good faith must enter into the giving of a drug by a physician to a patient. There have been some recent decisions by the federal court along that line. I have just called attention to the good faith theory. We must appeal to the medical profession in this matter."

Judge Collins stated that drug addiction does not commence until 16. He said he had heard a lot of stories about infantile addiction, but that they were isolated cases, in his opinion. He said the case recently noted at the Health Department of a mother who was a drug addict and was given a narcotic and, after emptying out the drug from the paper in which it was contained, wiped what remained of it across the lips of her infant, was such an extreme case that he believed it stood alone, the judge stating that the mother's purpose in doing this, as expressed by the mother herself, was that she did not want "the brat to wake up." Continuing, Judge Collins said:

"I think the cases illustrated by doctors on this subject of children shortly after birth showing evidences of drug addiction

as the result of heredity coming from the mother are quite true, and the treatment of these children as the result of such is necessary. That is quite true, but I think that with the treatment today the condition disappears. Certainly the child does not continue to be an addict and the doctor does not continue treating it for drug addiction. The condition disappears shortly after birth. The child dies or is cured. Children are not given the drug habit. There was no justification for the widespread alarm of peddling drugs in candy form to children around the schools. That was wild exaggeration. I may speak in theorizing on this subject as the result of experience in the Children's Court in Kings County and in New York County and in all of the counties in Greater New York. The cases that came into the Children's Court of drug addiction (in children) were merely negligible, there being not more than two or three in the year throughout the whole City of New York. I found that boys got possession of drugs by accident. There are no drug addicts among the children. The cases referred to from a medical standpoint are considered exceptions, but at 16 drug addiction commences. At 16 there are a few, but between 17 and 22 it is absolutely astounding. Here are practical figures:

"Between 16 and 21, 26.2 per cent males; 3.5 per cent females, in the Court of Special Sessions, showing 29.7 per cent who were under 21 years of age; and they didn't commence until they were past 16. Between 21 and 30, 35 per cent, showing between 16 and 30 years, 62.7 per cent of addicts coming into our courts. That was the percentage. It is not the result of a long formed habit. It is not the result of persons being treated for surgical injuries many years ago and acquiring the morphine habit.

"The largest number of drug addicts in the courts are heroin victims. Heroin, and the use of it, is not old in America. It has become a serious menace and is something that we have to contend with and protect the public against. Now, to continue the figures: Between 31 and 40 years, 21.5 per cent, and over 40 years, for the rest of their lives, the percentage is only 15.3.

"I have given you figures on drug cases as such in the Court of Special Sessions only. The reason I said drug cases as such is this: these figures do not show the full number of drug addicts coming into our courts because there are quite a large number arraigned, not as a result of drug addiction alone, but for something else. The cases I refer to are either possession or illegal dealing in the drug. We have a large number of criminals who commit all kinds of crimes and who are arraigned and charged with those particular crimes and who perhaps are drug addicts nevertheless, but it would not show in the figures.

"In 1917 I made a statement for the use of the State Organization of Justices that the percentage of cases of drug addicts coming into our courts was fully 25-30. This is an alarming state of affairs. Why are addresses like this before a medical body of considerable importance? Why is it that the situation is now, in so far as the salvation of the public in the treatment of this evil is concerned, in the hands of the medical profession? In my opinion, we must appeal to you. We have got to get

men like you, who are fit to be members of an association like this, to cope with this evil. I am of the opinion that custodial care is the only practical and safe way to treat drug addiction to effect a cure. I do not mean imprisonment. I do not mean incarceration through the instrument of court commitment, but I mean custodial care in its broad sense. The victim of the drug habit is not in possession of his full will. However strong-willed a person he may have been at one time, he is, nevertheless, affected as to his will centers by virtue of his addiction. He cannot be cured by the ambulatory system of going from doctor to doctor. You cannot do it without considerable difficulty and covering a long period of time. I am firmly of the opinion that custodial care is the one way to accomplish a cure. It does not need to last over a week or two, but the necessary period of convalescence is long, the period when he would go back to the drug, even though one had eliminated it: when left to his own free will and action he would go back. There is what is known as *after-care*, when certain kinds of outdoor exercises for the body during its building-up process are necessary in order to get him back to normal condition. That takes some time, but it is the one practical way. I have seen many splendid results from that method of treatment. The only danger is that at some later time, under the stress of great emotion, such as extreme sorrow or the like, there is the danger of the drug addict going back to the habit.

"While custodial care is the best thing for these people, there are so many of them that you cannot place them all under custodial care. We haven't got institutions enough.

"It has been said that the drug evil extends to every walk of life. I have heard some medical men say, and I believe they were basing the statement on positive knowledge and experience, that it even enters into the profession of the ministry, and that there was not a walk of life that was free from drug addiction.

"The medical profession must treat these people in good faith for the purpose of effecting a cure and where there is a recommendation of custodial care and where it is available, it certainly should be resorted to.

"You must arise to the occasion and do this treating. Don't leave the prescribing and the dispensing to the black-legs of the profession, who are not alone so injurious to the body politic, but are blackening the fair name of the medical profession.

"I am firmly convinced, after years of study of this subject that the time has arrived when custodial care of these people should be encouraged wherever possible and that the public necessity of appealing to the honorable members of the medical profession is at hand and that they be asked to treat these cases. I know there is great danger of passing it up because you do not want to be bothered with the red tape of the law, but that is absolutely necessary. It has been arrived at after years of experimental statutes on the subject. It has a good motive with the end in view of controlling this evil, which is a big serious public one. It is quite true that we have difficulties to act on. The federal government cannot entirely enact laws (they can pass tax or revenue laws), and the state can only pass a law affecting the state alone, except in the indirect way that I

referred to, as requiring the purchase (of drugs) from these only who are licensed to sell them. Uniform laws throughout the whole union would be a big job. There is no question but that the crude material must be controlled. It has grown to such stupendous proportions through a lack of interest solely, and it may be that later on it will be necessary to hold an international convention to properly control it. There is something the matter with us when the federal government finds there is more of the drug consumed per capita in the United States than in China, and why is it so? Is it because there is too great and liberal a distribution of the drug for medicinal purposes, or is it because of commercial purposes that a large part of the drug is used? Whatever the cause is we do not know, but we do know that the situation is such that it has caused the American citizen to assist in every way possible to control this evil habit, which is a more serious evil than any that could blight our civilization."

"THE NEW YORK STATE NARCOTIC COMMISSION."

Sara Graham-Mulhall

MR. CHAIRMAN AND MEMBERS OF THE KINGS COUNTY MEDICAL SOCIETY:

I have been asked to confine my remarks to an interpretation of the Harrison Narcotic Law and the New York State Law in regard to the duties and responsibilities of physicians.

INTERPRETATION

Federal Law

Revenue Measure: It cannot now be questioned in any law court that the Harrison Act is a Revenue Measure or Tax Law, and is to be construed as such. The primary object, therefore, is to raise money, as this act is a revenue act. While it may be assumed that the statute has a moral end, as well as revenue, in view, the ends are to be considered as reached only within the limits of the revenue measure.

VITAL SECTION OF THE HARRISON LAW

Vital Distinction: This law relates to interstate commerce, comes under the law of Congress, and provides:

Registration: Every person that produces, imports, manufactures, deals in, dispenses, sells, distributes or gives away any opium or cocoa leaves, or preparation thereof, shall register with the Controller of Internal Revenue, in his district. No persons can sell or give away, or exchange any of said drugs, except under written order of the person to whom it is sold, bartered or given in a form to be issued by the Commissioner of Internal Revenue.

Exemption: Except that this does not apply to dispensing said drugs by a *Physician* or Dentist or Veterinary, in the course of his practice, for such *Physician* or Dentist must keep a record of all such drugs dispensed, showing the amount, date and the name of the recipient.

Exemption: But this is not required of a *Physician* or a Dentist, who personally attends the patient.

(Query: Except such as may be dispensed to Patient upon whom such *Physician* shall personally attend with reference to effecting a cure).

COURT DECISIONS CONSTRUING PROVISIONS OF THE LAW

An indictment of a *Physician*, charging him with giving a prescription for and so dispensing pounds of opium, charging no offense; because the word "dispense," as used in the statute, "relates to actual delivery of the drug by the *Physician* to the patient, from the former's office supply, generally, though not excluding other actual delivery." *United States v. Reynolds* (D. C. Mont., 1916), 244 Fed., 991, sustaining a demurrer.

SUPPLEMENTARY TO LOWER COURT DECISION AND FINAL RULING

Supreme Court Decision: The first paragraph of Sub-division 5 of Section 427, reading "A physician may, in the course of legitimate practice in good faith of his profession," etc., shall be interpreted in accordance with the decision of the *United States v. Doremus*, involving the provisions of the Harrison Narcotic Drug Act, as follows:

"If a practicing and registered *Physician* issues an order for morphine to an habitual user thereof, the order not being issued by him in the course of professional treatment in the attempted cure of the habit, but being issued for the purpose of providing the user with morphine sufficient to keep him comfortable, such an order will be considered by the State Narcotic Commission as a perversion of meaning, and such an act will not be considered to agree with the 'good faith' required by Subdivision 5 of Section 427."

Prescription: Federal Laws: A prescription calling for any of these drugs must give the name and address and registration number of physician, name, age and address of the patient and the date of signing the prescription. (No limit to the amount.)

Sale or Use of Narcotic Drugs: May dispense or distribute to patient, or messenger, to deliver to patient, any amount of these drugs, provided he make and preserve for two years a record of the date, name and amount of drug, and name and address of the patient.

(Query: Except such as may be dispensed to patient upon whom such physician shall personally attend.)

The gross amount of each drug must be recorded.

Penalties: That any person who violates or fails to comply with any of the requirements of this Act, shall, on conviction, be fined not more than \$2,000, or be imprisoned for not more than five years, or both, in the discretion of the Court.

Clause (a) is unconstitutional as in violation of the Tenth

Amendment to the Federal Constitution so far as it makes criminal a sale, etc., by a registered *Physician* of a prohibited drug, without a "written order," etc., and not "in the course of his professional practice," since said omissions are merely violations of local police regulations, which Congress had no power to establish, and are not means to effect the objects of the Act in respect to its revenue. *United States v. Doremus* (W. D., Tex., 1918), 246, Fed. 958.

DECISION OF LOWER COURT (N. D., N. Y., 1916), 229, Fed. 288

The Court said: "It is plain, it seems to me, that it was the purpose of Congress to limit the quantity of these drugs that may be sold or dispensed by a dealer under and pursuant to a written order issued by a *Physician*, and to limit the amount and quantity to such an amount and quantity as is or ought to be called for by a prescription issued by the *Physician* 'in the course of his professional practice only.' Section 2 says in terms that nothing contained in this section shall apply: '(b) To the sale, dispensing or distribution of any of the aforesaid drugs by a dealer to a consumer under and in pursuance of a written prescription issued by a *Physician*, Dentist or Veterinary Surgeon registered under this act.' And then follows a proviso that the prescription shall be preserved, etc. Is it reasonable or probable that Congress intended that the *Physicians* may prescribe unlimited quantities and that dealers may fill such prescriptions?

"I fail to find in the act of Congress under examination any language making the doing of the things with which the defendant is charged a violation of law. In other words, there is no limit fixed to the amount of said drugs that a *Physician* may prescribe, nor is there any duty imposed upon him other than to keep a record of all such drugs dispensed by him, and the name and address of the patient, except those to whom he may personally administer, and that he must preserve the records for a period of two years. For failing to do either of these things he is not indicted."

State Law: The most important change in the legal status as it applies to the medical practitioner, is that caused by the Supreme Court decision handed down April 12th, Section 2 (Law):

"If a practicing and registered physician issues an order for morphine to an habitual user thereof, the order not being issued by him in the course of professional treatment in the attempted cure of the habit, but being issued for the purpose of providing the user with morphine sufficient to keep him comfortable, such an order will be considered by the State Narcotic Committee as a perversion of meaning, and such an act will not be considered to agree with the 'good faith' required by Subdivision 5 of Section 427."

Construing This: There has been no change affecting the legal right to use narcotic drugs in the cases of persons who are not addicts. Every physician may feel free to treat cases in accordance with his own professional judgment.

Physicians Prescribing: A physician may, in the course of the legitimate practice of his profession in good faith and for the purpose of relieving or preventing pain or suffering on the part

of a patient, or to effect a cure, administer, prescribe or dispense cocaine or opium or its derivatives as follows: He may, upon an unofficial prescription blank, issue a prescription which does not contain more than five grains of cocaine, or more than thirty grains of opium, or more than six grains of codeine, or more than four grains of morphine, or more than two grains of heroin. He may also, upon an unofficial prescription blank, issue a prescription for such quantity of any such drugs in excess of such respective quantities as may reasonably be required in the treatment of a surgical case or a disease other than drug addiction, provided such fact be stated upon the prescription. Each other prescription for any of such drugs shall be written upon a serially-numbered official prescription blank in triplicate, to be procured from the Department, signed by him and containing, in legible English or Latin, the name and amount of the drug prescribed, the name, age and address of the person for whom and the date when the prescription is issued. He shall issue the original and one other of such triplicate prescriptions for delivery to an apothecary and shall retain the other copy on file for a period of two years.

He may administer or dispense to a patient whom he is treating not to exceed two grains of cocaine, or fifteen grains of opium, or three grains of codeine, or two grains of morphine, or one-fourth of a grain of heroin.

He may, while absent from his office in personal attendance upon a patient whom he is treating, dispense, to be taken in his absence, not to exceed fifteen grains of opium, or three grains of codeine, or two grains of morphine, or one-fourth of a grain of heroin.

If he otherwise administer or dispense any of such drugs, he shall record in writing upon a serially-numbered official physician's dispensing blank in duplicate, to be procured from the Department, in legible English or Latin, the name and quality of the drug and the form in which administered or dispensed, the name, age and address of the person for whom and the date when administered or dispensed and shall sign the same. He shall keep the original of such dispensing blanks on file for at least two years and shall, within twenty-four hours, mail the copy to the Department.

Penalties: A violation of any of the provisions of this Law shall constitute a misdemeanor and the Commissioner may, for cause deemed by him to be sufficient, after having given reasonable notice and opportunity to be heard, revoke any certificate of authority issued by the Department and revoke, cancel or withhold official blanks issued or applied for. And in such connection no communication made to a physician shall be deemed confidential.

TWO IMPORTANT RULINGS ISSUED BY THE DEPARTMENT OF NARCOTIC DRUG CONTROL

Definition of Drug Addict

For the purposes of this Department, the term "drug addict"

is defined as follows: One who requires, or demands, daily administering of cocaine, opium or their derivatives for a longer period than one month, except that upon the report of the physician or institution in charge of such person, the Drug Commission may declare that the continued use of any of the aforesaid drugs, or their derivatives, by such person does not constitute addiction. In reaching a determination on individual cases, the Commission may take into consideration the factors of incurable diseases other than drug addiction and any other professional considerations that may be stated by the physician or the institution in charge.

THE CHRONIC SUFFERER NOT AN ADDICT

A patient suffering from inoperable cancer or any other chronic or incurable disease, where it is not possible to remove the cause and where the continued use of narcotics is rendered necessary in the attending physician's honest judgment, such sufferer shall not be classed an addict, and the reputable physician is empowered to prescribe the necessary amount which he, in his professional judgment, conscientiously considers necessary.

Commission's Power: The Commission is simply appointed for the purpose of seeing that the law is carried into effect and made as beneficial as possible. It is empowered to make all (421) needful or helpful rules, regulations, rulings and decisions, which in its judgment may be necessary to, or proper to supplement or effectuate the purposes and intent of the law or to interpret or clarify its provisions, or to provide the procedure, or detail requisite in its judgment, to effectually secure the proper enforcement of its provisions by the Commissioner. Such shall become rules, regulations, rulings and decisions of the Department, and until modified or rescinded, shall have all of the force and effect of statute.

The Commission shall obtain data and information relative to the extent of drug addiction and the means by which it can be controlled, reduced, eliminated and the means and methods used in its treatment.

Through the existing powers in the State law, and through using that co-operation which the Internal Revenue Service is required by Federal Law to give, the Commission can bring about a registration of addicts, which, within six months, will contain the facts about the majority of addicts, at least in the metropolitan district. The institution of a system of registration will be of great help in the economical enforcement of the Commission's regulative powers, and will be a necessary means to the control, or at least the approximate control, of the addicts during the period of their treatment.

In six months' time the Commission should be able to state authentically, not merely the number of drug addicts, but the measure of effectiveness of the law in reducing the number of addicts. It is probable that it can in six months be objectively proved that there has been at least a one-fourth reduction in the use of drugs by addicts. It is impossible to promise that this question, which is so many years old, and in which there are so many unknown and contingent factors, can be settled in any limited

time, but it can be promised that within six months the people and the civic and medical bodies of the state will understand the nature of the problem.

In conclusion, I have been instructed by Commissioner Herrick to seek your co-operation, your sympathy and your aid. As you know, we have at this moment an immense problem of repair and reformation. Let the medical profession, therefore, come to realize this its obligation and its opportunity to enlist itself with the Department of Narcotic Control in a uniform and joint action in the presence of widespread danger, such as this narcotic addiction disease presents.

“MEDICAL PRACTICE AS AFFECTED BY THE HARRISON LAW.”

Hon. Ben. A. Matthews,

Assistant U. S. Attorney, Southern District.

THE HARRISON LAW has several phrases in it which affect the medical profession. I am not going to take the time to outline to you what the Harrison Law says or to even go into the recent amendments which require that all drugs shall pay a tax of a cent an ounce.

There are these phrases which occur in the Harrison law that affect the practice of medicine, and about which most of the doctors are very much interested, especially those who, in the course of their practice, have more or less to do with the administering or the prescribing of cocaine, or morphine, or any of the similar drugs.

The first phrase is “Personally attend.” There is one decision on that phrase in the case of Dr. Nathan Tucker against Williamson, the Collector of Internal Revenue, in Ohio. Probably all of you remember Dr. Tucker. He originated the one and only sure cure for asthma. Doubtless a good many of you have recommended it to your patients. It is quite a popular remedy, and he was prescribing it by mail. He did not feel he should be required to keep a record of the cocaine alleged to have been included in that concoction, and sued the Internal Revenue Collector in order to obtain a restraining order to prevent confiscation of a lot of drugs that he had in his possession and in order that he might continue manufacturing the preparation in which he was interested. In order to be accurate, I shall read what the Court decided in that case:

“The only physician that may, under section 2 (a), lawfully dispense or distribute the drug in question is one who is registered and who acts in the course of his professional practice only. He may not (sec. 2 (d)) obtain it by means of the prescribed order forms for any purpose other than the use, sale, or distribution of it in the legitimate practice of his profession. He must in each instance in which he dispenses the drug be employed to prescribe for the particular patient receiving such drug. He may not engage in the business of selling, unless he sells

it in filling his own prescriptions, for the sale of it is, generally speaking, the part of the druggist. He must act strictly within the line of actual employment in a legitimate and professional practice only in which he personally judges (diagnoses) the nature, character, and symptoms of the disease, determines the proper remedy for it, and prescribes the application of the remedy to the disease. Personal investigation precedes and personal supervision accompanies the prescribing. The remedy is to be adapted to the disease and wants of the particular patient. A physician may not prescribe for other than the particular patient that employs him and that is to receive the drug. The proviso of section 4 makes lawful delivery of the drug by any employee (acting within the scope of his employment) of any person who shall have registered and paid the special tax; but that section, when it treats of physicians, deals only with the delivery of the drug and permits its delivery by a person (an individual) only when it has been prescribed or dispensed by a registered physician who has been employed to prescribe for the particular patient who is to receive such drug. The law contemplates that there shall be no promiscuous or covert passing around of the drug to persons who have not employed the physician and received it on his prescription.

"The regulation promulgated by the Treasury Department that a physician must be actually absent from his office and in personal attendance upon a patient in order to come within the exemption of section 2 (a) accords with the design that a physician shall maintain supervision over the patient for whom he prescribes. One of the definitions of 'attend' (Latin, *attendere*), given in Webster's International Dictionary, is 'To visit professionally, as a physician.' The Department thus places (and I am disposed to think rightfully so) a more restricted meaning on personal attendance than the courts have placed on medical attendance, it being held that to constitute the latter it is not requisite that the physician should attend the patient at his home and that an attendance at his office is sufficient. If, instead of personal attendance on a patient by the physician, he calls on the physician at his office for treatment, in which event such physician is required to make a record of his prescriptions, the opportunity is afforded of personally diagnosing, studying, supervising, and prescribing for such patient. If a regularly practicing physician may prescribe without seeing his patient, it is in occasional instances only. The responsibility cast upon the physician is great, and the law consequently exacts of him a high degree of integrity—practices which are both professional and legitimate. Even a layman knows that the diagnosis of diseases has in recent years assumed increased and increasing importance for the purpose of determining and removing their causes."

The next phrase is the word "Prescription." I ran into that about a year and a half ago in connection with a case against some doctors who claimed to be doctors (at least, I would not call them doctors myself, nor would you), who were peddling drugs and in order to protect themselves against prosecution, they were using slips of paper with "Recipe" written in the upper left hand corner and in between that and their names they would

put down the various amounts of cocaine or heroin, as the case might be. They used that as a defense against prosecution under the Harrison Law, paid the tax and thought they would go scot-free.

On looking up this work I found that the Courts has considered that a great many times. Whether the word "prescription" has in medicine or not I do not know, but I do know that in law it has come to have a very definite meaning and varies only slightly throughout quite a list of authorities in the State Courts."

The following was then read by Mr. Matthews as bearing on the word "Prescription:"

"*'Prescription,'* in medicine, to *'prescribe'* remedies is defined to be *'To write or to give medical directions; to indicate remedies.'* (*"You will find that running through all of the decisions. A prescription is a direction for a remedy or a cure. In that case, the construction claimed by the physician was very much like that which is now being claimed by some of them. He was indicted for writing a prescription and claimed that it was no prescription. There are a number of decisions under the State Law, or those (cases) at least which have been tried for some time, making it theoretically impossible to get whiskey except on a physician's prescription."*) It is not necessary that such prescription should be in writing, It may be given or indicated verbally. Any direction given to the patient for drugs, medicines, or other remedies, for the cure of bodily diseases, directing how they are to be applied to, or used by, the patient is a prescription, within the Revenue Code 1852, amended in 1893, p. 58, c. 7. It would make no difference whether the direction was given by the person in charge of the patient himself or by another person, even though he was a licensed physician engaged by and under the control and direction of the person in charge in that particular. *State v. Paul*, 76, N. W. 861, 56 Neb., 369; *State v. Lawson* (Del), 69, Atl. 1066, 1067, 6 Pennewill, 395.

"Where, in a prescription for administering or *'prescribing'* medicine to a pregnant woman to produce the abortion, it was proved that defendant furnished medicine to her, and gave her directions with reference to taking it, he was properly convicted of *'administering or prescribing'* medicine or drugs to prosecutrix, etc., prohibited by Sand. & H. Dig. Section 1459, though he was not present when the medicine was delivered to prosecutrix or taken. According to the Century Dictionary, *'prescribe'* means to *'advise, appoint, designate, as a remedy for disease; to give medical directions; designate the remedies to be used; as to prescribe for a patient in a fever'*—and according to Webster's Dictionary, the term, as applied to medicine, means *'To write or to give medical directions; to indicate remedies; as to prescribe for a patient in a fever.'* *Burns v. State*, 84 S. W., 723, 724, 73 Ark., 453 (citing *McCaughy v. State*, 59 N. E., 169, Ind. 41).

"*"One who caters to the patronage of the sick, who ask relief from their ills' and assures them of her ability to help them, and supplies them with her alleged appropriate remedies, giving instructions for their application or use, would seem to come within the ordinary and usual signification attached to*

the words 'prescribing and furnishing medicines.' *State v. Breese*, 114 N. Y., 45, 47, 137 Iowa, 673, 24 L. R. A. (N. S.) 103.

"A physician's 'prescription' which does not state that intoxicating liquor prescribed is a necessary remedy, is not a prescription within the statute prohibiting the sale of liquors by pharmacists, except on a prescription stating that such liquor is 'prescribed as a necessary remedy,' although it contains the letters 'P. N. R.' *State v. Manning*, 81 S. W., 223, 225, 107, Mo. App., 51.

"Revenue Statute 1899, Section 3050, makes any physician who shall issue a 'prescription' for intoxicating liquor to be used otherwise than for medical purposes, guilty of a misdemeanor. Section 3047 forbids a druggist to sell intoxicating liquor in any quantity of less than four gallons, except on a written prescription from some physician stating the name of the person for whom prescribed, and that such intoxicating liquor is prescribed as a necessary remedy. Held, that a prescription issued by a physician 'for one quart of whiskey,' dated and signed by him, was not a prescription within Section 3047, and was not even good as a written order for an intoxicating liquor, and hence, furnishing no authority to a druggist to sell intoxicating liquor, the issuance thereof was not a violation of Section 3050. *State v. Davis*, 108 S. W., 127, 128, 129, Mo. App. 129.

"'Prescribe,' as used in an Act, Feb. 10, 1887, providing that such an act shall not be considered to prevent regularly licensed and practicing physicians from administering certain prohibited liquors whenever they deem it necessary, and requiring such physicians to make and subscribe an oath that they will not prescribe any of said intoxicating beverages, except in cases of absolute necessity, means to 'direct as a remedy.' *Brinson v. State*, South. 527, 528, 89, Ala. 105 (citing *Worcester Dict.*).

"'Prescribe' when used as applicable to physicians, embodies the purpose of cure, remedy, or alleviation. It means to advise upon or designate, as a remedy for a disease, and has a broader meaning than merely prescribing medicines, as, for instance, after the physician has apparently examined the patient, he may find that the patient does not need a medicine, but that he needs different food, different air, or different employment, or must keep away from bad company, etc., and advises him what to do so as to regain his health, and is so used in Revenue Statute 1898, Section 4075, excluding testimony of physicians as to information necessary to enable him to prescribe for such patient as a physician. *In re Bruendl's Will*, 78 N. W., 169, 170, 102 Wis. 45.

"A prescription is a written medical recipe. *Mayer v. State*, 42 Atl. 772, 63 N. J. Law, 35.

"The word 'prescription' means, in medicine, a statement, usually written, of the medicines or remedies to be used by a patient, and the manner of using them. *Caldwell v. State*, 46 N. E., 697, 698, 18 Ind. App. 48.

"'Prescriptions,' as defined by Webster, is a direction of a remedy or of remedies for a disease, and the manner of using them; a medical recipe; also a prescribed remedy; and an order to a druggist for two pints of 'spirits fermenti,' which

was absolutely necessary as a medicine for the person named in the order, and was not to be used as a beverage, was a 'prescription,' within Code C. 32, Section 6, providing that spirituous liquors shall not be sold by any druggist, 'except upon the written prescription of a practicing physician in good standing in his profession.' *State v. Bluefield Drug Co.*, 27 S. E., 350, 43 W. Va., 144.

"In *United States v. Calhoun*, 39 Fed., 604, Judge Simonton, in charging the jury in a case of violation of Section 3246, R. S., said: 'An apothecary who bona fide uses spirituous liquors exclusively in the preparation or making up of medicines need not pay the special tax. These are the questions you must answer in this case: In the sale made by defendant to witnesses for the Government did he bona fide sell the compound to them as medicine, and not as a beverage, or was the compound simply whiskey in disguise? Is it a medicine to cure disease, or is it intended to gratify his thirst as drink?'"

"Now, let us come to the question of what is 'Professional practice.' I am afraid I am not going to be of very much service to you here. I shall not endeavor to define that term. We have a number of cases pending in the Southern District of New York wherein the Courts will have to define it a little more definitely than it has been defined. I am going to wait for them to define it. I shall give you only quotations from a few cases which seem to me to have any authority to pass on this question.

You know that the Harrison Law, as has been said here tonight, is purely an internal revenue tax law. The only power which Congress has was to pass a law to collect excises. It was an excise law affecting doctors, druggists and manufacturers of narcotics. There are three clauses—the manufacturer, the dealer and the practitioner. Now the law has divided them into five classes, I believe—Class I, the maker, or importer, or compounder; Class II, the wholesale dealer; Class III, the retail dealer; Class IV, the practitioner; and Class V, those dealers who handle only "de minimus" preparations; in other words, articles containing so small an amount as not to be subject to a tax. They must pay only a tax of \$1.00 a year. The others pay a tax of from \$3.00 to \$24.00, as Congress recently raised it.

Under Section 2 of the Harrison Law, no sale can be made except on an order form. Nobody can get those except persons who are registered. By means of those order forms a complete record, in theory, would be kept of all the drug that is dispensed of. There is one real exception to that provision. That exception is that physicians may dispense the drug, or prescribe it, and the druggist may fill those prescriptions, and it is in that exception that we find the phrases "Prescription" and "Professional practice." The prescriptions are accepted in all those cases where they are issued in the course of professional practice only. So there is only one outlet for the drug, from registered persons, and that is through the physician, and it is only in that way that it can come to the consumer.

I might say here that the old objection was raised in connection with this law, namely, that Congress had no right to pass such a law in connection with the matter of narcotics. The

State, it was contended, could do it, but not Congress. That argument was pressed very vigorously and almost successfully, the decision being five to four, the Chief Justice being among those dissenting, in the Supreme Court. That went to the Supreme Court in two cases which were argued at the same time and decided on the same day. One of these was the case of the *United States v. Doremus*. Doremus had been charged with distributing to a man named Ameris 500 one-sixth grain tablets of heroin. The indictment charged that he gave those to Ameris, not in the course of his professional practice, but merely to satisfy the craving of Ameris for the drug, and Ameris was charged with being a drug addict to the use of heroin. The lower court ruled that the law was unconstitutional. The case then was carried to the Supreme Court and Congress was held by the Court to have that power, because the regulation in the Senate controlling the distribution of the drug and permitting the sale and outlet of it were directly related to the raising of revenue. The words of the decision in this case were very brief and I shall take the liberty of reading them to you:

"Congress, with full power over the subject, short of arbitrary and unreasonable action which is now not to be assumed, inserted there provisions in an act specifically providing for the raising of revenue. *Considered of themselves, we think they tend to keep the traffic above board and subject to inspection by those authorized to collect the revenue. They tend to diminish the opportunity of unauthorized persons to obtain the drugs and sell them clandestinely without paying the tax imposed by the Federal law.* This case well illustrates the possibility which may have induced Congress to insert the provisions limiting sales to registered dealers and requiring patients to obtain these drugs as a medicine from physicians or upon regular prescriptions. Ameris, being, as the indictment charges, an addict, may not have used this great number of doses for himself. He might sell some to others without paying the tax; at least Congress may have deemed it wise to prevent such possible dealings because of their effect upon the collection of the revenue.

"We cannot agree with the contention that the provision of Section 2, controlling the disposition of these drugs in the ways described, can have nothing to do with facilitating the collection of the revenue, as we should be obliged to do if we were to declare this Act beyond the power of Congress acting under its constitutional authority to impose excise taxes. It follows that the judgment of the District Court must be reversed."

On the same day the Supreme Court also decided the case of *Webb* against the *United States*. He was a physician in Tennessee, who was indicted with a man named Goldbaum, a druggist, and was convicted with the druggist of writing and filling prescriptions for drug addicts. The case went to the Circuit Court of Appeals and by that Court certified to the Supreme Court. Three questions were propounded by the lower Court to the Supreme Court and the Supreme Court in its decision merely answers those questions. I shall read the questions and the answers.

"1. Does the first sentence of Section 2 of the Harrison Act prohibit retail sales of morphine by druggists to persons who

have no physician's prescription, who have no order blank therefor and who cannot obtain an order blank because not of the class to which such blanks are allowed to be issued?"

The answer was "Yes;" that it does so prohibit. That controls the distribution through the sole channel of the practitioner.

"2. If the answer to question one is in the affirmative, does this construction make unconstitutional the prohibition of such sale?"

The answer to that question was "No;" that it does not.

Now, the third question:

"3. If a practicing and registered physician issues an order for morphine to an habitual user thereof, the order not being issued by him in the course of professional treatment in the attempted cure of the habit, but being issued for the purpose of providing the user with morphine sufficient to keep him comfortable by maintaining his customary use, is such an order a physician's prescription under exception (b) of Section 2?"

"The answer was 'No.' I think that that question and that answer are of more interest to the medical profession than all else which has been written on this subject. This is the Supreme Court speaking and it is final and it is authoritative until Congress or the Court itself changes the rule. So I am going to take the liberty of reading that question again.

"A case somewhat similar to that was a case which I myself tried against two druggists who ran a little shop at 125th St. and 8th Ave., New York City, and a doctor who had a room nearby, a Dr. Corish, who was secured by these druggists, Workin and Meyers. Workin established the drug store, but was not registered. Meyers was registered. He was once before convicted of unlawful trafficking in narcotics. This place soon became a supply station for addicts. They secured the installation of a physician in the back room of the store. Addicts would come in there and the doctor would write prescriptions for them and they would be filled in the drug-store. The doctor would be paid 50c for a prescription of less than 20 grains, \$1.00 for more than 20 grains, 40 or 50, I believe, and for larger amounts \$1.50. At any rate, the doctor's compensation was gauged by the amount called for by the prescription. He stayed a little while, got afraid and moved on. Then they got another one and he, likewise, shortly moved on to a more profitable field. Then they got another. In the course of a year and half they had six different doctors there. We investigated the place on a Tuesday and they had one doctor there and when we got back, nearly a week later, we found another doctor there, the one we investigated having gone in the meantime. Corish had gone and another doctor had taken his place. That case was tried, and the evidence showed that the addicts would first go to the drug-store and they would be recommended to the doctor by the druggist. The doctor would then give them a cursory examination, which consisted in taking the man over to the light, raising his eyelids, examining his skin, taking his pulse, and then having him sit down and sign a statement reading, 'I am a drug addict and place myself under so-and-so's charge.' The drug addict signed in each case. Then the doctor would ask the drug addict the name of the last doctor he had and how much

he had been getting, and the addict would say, 'I have been going to Dr. Jones and he has been giving me a two days' supply of 35 grains for \$2.00.' Then the doctor would say, 'We will increase it to 40 grains and cut you down later on.' Two days later, on going back, he would get $39\frac{7}{8}$ grains, and that would continue.

"There is a very interesting case which was decided by the State Board of Health of Rhode Island, which was carried into the courts, in Rhode Island. This decision was printed by Dr. Copeland in his bulletin a few days ago, and I am inclined to believe that most of you have seen it, but I doubt if you have read it, so for that reason I am going to read briefly from that decision. I am afraid it won't be so brief. This case (*Knoop v. State Board of Health*, 103, Atlantic 904, 41 R. I.) gives us in one picture a composite of the various pictures which we have seen in the various prosecutions which have been undertaken:

"**OPINION:** This case arises on appeal from the decision of the State Board of Health and the order of the said Board revoking the license of the appellant to practice medicine. The case was recently before this Court on objection of the appellant for writ of certiorari. See *William F. Knoop vs. State Board of Health*, 41 R. I., 102 Atl., 609, and references made to the report of that case for the preliminary history of the case.

"The case was heard *de novo* by this Court on the oral testimony of witnesses given before the Court on the question whether or not license of appellant should be revoked for any of the causes specified.

"Twelve witnesses were produced by the State who testified in regard to the procedure by which numerous prescriptions for morphine and cocaine were secured from and furnished by the appellant, Dr. Knoop, who had been in practice since 1906, and had his office on Broadway in the City of Providence. Prior to 1906, who had had no practice with the class known as 'drug addicts.' In 1916 and thereafter this practice to a very considerable extent appears to have been confined to this particular class, who visited the doctor at his office at more or less regular intervals, and there secured from him the prescriptions for the drugs. The majority of the witnesses testified that no physical examination of any kind was made by the doctor before prescribing the desired drug; that they stated the amount of morphine which they were accustomed to use, and upon payment of the fee charged they were given a prescription to start with, usually for 60 grains, and were told that they must make this last a week, and that they must go for as long a time as possible before returning for another prescription, and that the amount of the prescription would be reduced each time a new one was called for. In no case does it appear that these patients were ever visited in their homes, or that any directions were given to assist these sufferers in freeing them from the drug habit. As a matter of fact, many of the patients did not want to be cured, but, on the contrary, they desired to get their regular supply of drugs, and to continue the use of drugs. Many of them would and did use any stratagem or deceit, if necessary, to secure large and frequent supplies. One or more of the addicts treated by the doctor were

known to be men who had criminal records, others were known to be vendors of the drug whenever they were able to secure an extra supply. There were two families in which both husband and wife had been treated by the appellant at his office. These people appeared to be reputable working people, and one of them has since been cured of the drug habit, not, however, as the result of the appellant's treatment. The wife of the last mentioned patient is a robust, healthy woman, who did not use drugs at all, but, acting by direction of her husband she became a patient of appellant and secured a number of prescriptions for morphine, nominally for her own use, but in reality for the use of her husband and a friend of his. This woman swears that the appellant made no examination of her, but gave her a prescription upon her request and statement that she was accustomed to using drugs. The doctor testifies in this case, as in every other case that he did examine the patient; that, as the woman claimed to take the drug by eating it, rather than by the usual method—hypodermic injection, it was more difficult to discover by examination whether she was telling the truth, but that finally he became convinced, particularly, from the appearance of her eyes, that the woman was an addict, and then gave her a prescription for morphine.

"The Court saw the witnesses and heard them testify and were satisfied in the case of this woman and in certain other cases that no examination of the patient was made before the prescription for the drug was given.

"The so-called treatment of these patients was the same regardless of their physical and mental condition, the past history, or environment. In response to questions the doctor testified as follows:

"'311. Q. Did you ever try to prescribe for any of these patients any substitute for morphine? A. I have prescribed in a number of instances. I had quite a few patients taking what I called my cure, that is, a cure I had.

"'312. Q. Did you try this cure on any of these patients that testified in this case? A. None of these here.

"'313. Q. Then you did have something you could give in place of morphine? A. I did suggest it to them and wanted them to take it in liquid and tried hard the best I could to influence them to take it that way."

"In numerous instances the patients by paying an additional fee secured prescriptions for cocaine also. The excuse for using this given by the patient was that the cocaine relieved the pain caused by the needle when the morphine injection was taken. The appellant says that the cocaine was prescribed in one case for neuralgia or neuritis, in other cases to relieve the patients from constipation, one of the known results of drug use. Neither explanation is convincing. The patient undoubtedly wanted the cocaine to satisfy the craving for drugs. The cocaine habit is as well recognized by the medical profession as the morphine habit, and, as stated by one of the medical witnesses in regard to this particular subject, it does not seem fair for the sake of relieving the ailments above mentioned to take the risk of fastening an added drug habit upon a patient who is already a victim of the morphine habit. Whenever a cocaine prescription was

written an extra charge, usually \$1.00, was made, in addition to the customary charge to the morphine user of \$2.00.

"The appellant claimed that the treatment given to these patients was given in good faith and in accordance with recognized medical practice of 'cure by reduction.' The testimony was given in regard to this form of treatment to show that the method was to decrease regularly and continually the amount of the drug taken by the patient and to deprive the patient of the drug entirely as soon as feasible. It appears that this method has been used with more or less success when applied in institutions where the patient was under the constant observation and continued control of the physician, where the amount of each dose could be regulated by the physician, and not by the patient, and that in some cases it had been used with success outside of institutions when the patient was possessed of strong will power, a fixed determination to be cured, but, if the patient was lacking in either the necessary will power or the desire to be cured, that this would be of no avail. One of the physicians testifying on behalf of the appellant testified very frankly that he would not undertake the treatment outside of an institution of an addict who did not desire to be cured, for the obvious reason that it would be useless.

"In the case at bar the appellant continued to treat a number of these addicts, when he knew, according to his own testimony, that they did not desire to be cured, that they were getting drugs from other sources in addition to the amount prescribed by him, and had secured prescriptions for additional amounts from him on their false statements that they had lost a part of their weekly supply. The appellant admitted that a better way of securing a favorable result would have been to have required his patients to come to his office at frequent intervals, thereby giving him a power to observe their conditions and control the size of the dose. His reason for not requiring this of his patients was that some of his patients were poor, and that any such requirement would result in his losing his patients. However well founded this fear may have been, it can hardly be urged seriously as a good reason for a failure to apply the method of treatment which was required. In the fall of 1916 the appellant went away on his vacation for a couple of weeks. Before leaving he filled out and signed a number of prescriptions for drugs, leaving a blank for the date in the month to be filled in when the prescription was issued in his absence. The prescriptions were left with a family relative of his wife, who was, by the arrangement, to remain in his office and give the prescriptions to his patients if they called for them, and who then was to fill in the date on the prescription when delivered. This attendant had no medical training, and her only acquaintance with the patients was such as she may have acquired from having seen them in the office of the doctor at different times for a week or two prior to his departure. That the appellant expected to cure his patients by such a course of procedure is incredible. That he did not expect to cure his patients is made clear by his own testimony when he was recalled to the witness stand after other witness had testified in regard to his method of treatment. The appellant then admitted that he did not expect to cure the patients, that the

only practical way of effecting a cure would be by placing them under control in some institution, and that his object was to give his patients a sufficient supply of the drug to enable them to continue their usual occupations.

"(1) This particular testimony requires no extended comment. Such treatment for such avowed purpose is illegal and unprofessional. One of the objects of the statutes (chapter 178 of the General Laws, 1909) is to prevent drug addicts from securing the desired drug, and thereby enabling them to continue the drug habit. The legislature recognized the necessity of making some provision for these unfortunate people and in a proper case the law permitted a physician to prescribe morphine, etc. Such treatment, however, must be in accordance with the recognize practice of medicine, the object of which, in cases whenever it is possible, is to effect a cure.

"(2) The procedure followed by the appellant neither cured the patient nor was it adapted to cure him. So long as the patient was able to procure his supply of the drug he would remain a drug addict. The treatment of the appellant was directed particularly with the purpose of securing the fees which his patients paid him in order to secure the desired prescription, and the conclusion from the testimony is irresistible that whatever reductions were made in the amount of drug prescribed were due more to desire on the part of the appellant to escape the prosecution for the violation of the law than to any expectation on his part of effecting a cure of said patients or of securing for his patients any permanent benefit.

"We are of the opinion that the appellant has been guilty of gross unprofessional conduct and of conduct making him an unfit person to practice medicine in this State.

"The finding of the State Board of Health revoking the certificate of appellant authorizing him to practice medicine and surgery in this State is affirmed."

"When we realize that that Law makes you the channel through which the drug must go to the consumer, I know you will look at the consumer and ascertain into how many classes he can be divided. There are two classes which have been recognized, not only by the Courts, but by the medical profession. I think Dr. Copeland in his bulletins has made very clear what those two classes are. The first class is the class which should be given every consideration. Those are the persons suffering pain from disease of any kind. For example, surgical cases and cancer cases. They are not drug addicts primarily and they are suffering from other diseases and the administering to them of a drug is no more than the prescribing of any other form of medicine for a chronic disease. The other class are the so-called 'dope fiends,' who have nothing the matter with them except that they want some more dope.

"I have tried to define what is and what is not professional practice as nearly as I could tell you from the decisions which I have read. There are a number of decisions on that question. The decisions in the Doremus and Webb cases were rendered on

the ground of and disposed of the contention that Section 2-B of this Act was unconstitutional.

"I think it proper to say, however, that any treatment of drug addicts which permits a doctor to have control over the drug addict and absolute control over the amount of drug that he is taking and he decreases the drug as rapidly as possible, prescribing other medicines to take its place, and in good faith endeavors to effect a cure of that man, is probably within the law. I do not believe that any doctor can nowadays say that he is treating with the intent and expectation of anything like effecting a cure where he sees the patient in his office only and has no control whatever over the supply that the man may get from other sources."



SHELL SHOCK.

THE article on War and Civil Neuroses by Dr. Nichols brings up a very practical side of the discussion of the subject of war neuroses that has yet received very little attention at the hands of the public. Indeed, there are two points in Dr. Nichols' paper that deserve more popular discussion.

It is quite true that the general report that several thousand sufferers from so-called shell shock recovered immediately upon the signing of the Armistice, was generally believed, and generally interpreted as meaning that these men were intentional slackers. As a matter of fact these men were practically all potential neurotics before they were inducted into service. Doubtless many of them went into active service without a neurological examination and, as was to be expected, broke down under the first strain, but it may be said of all of them that their condition was not the result of any voluntary malingering and that their recovery was entirely due to the removal of the psychological element of dread or fear. The very practical point is that which Dr. Nichols emphasizes in reference to the status of these cases in regard to pensions. The action of the English, French and Canadian authorities in refusing to consider neuroses as incurable and in refusing pensions to such cases is one that should be brought in the strongest way to the attention of the central administration for two reasons. First: In order that the element of self-interest, which is likely to be fixed and become a permanent obsession, may be removed from the patient and his recovery thereby hastened, and secondly: In order that the pension rolls may be relieved from the assault of a large number of such patients who are essentially curable and should not be carried at the public charge except in

so far as the Army Medical Service should continue to treat them until they are cured.

If these two contrasting and yet complementary phases of the subject could receive widespread publicity, it would doubtless help greatly in dispelling certain popular misconceptions of so-called shell shock, in relieving the general public of a great burden of unnecessary sympathy and unnecessary expense; and in restoring to usefulness with greater rapidity a large number of sufferers who, under ordinary conditions, would be quite capable of leading a useful and contented life.

H. G. W.

MEDICAL EDUCATION IN BROOKLYN.

THE ANNOUNCEMENT of the activities of a Committee to cooperate with Manhattan in utilizing the advantages for medical education that may be found in Brooklyn medical schools and hospitals indicates that the profession is fully alive to the wealth of material that is at hand, as well as the necessity of utilizing it in building up a broader foundation which shall make New York the center for medical instruction that it should be. With the disruption which must inevitably follow the readjustment in England and Continental Europe and with the bitterness which is bound to make such medical clinics as may survive in Germany and Austria impossible for American students, there is tremendous and immediate need to build up facilities for all forms of postgraduate study in this country, not only to replace those which have been destroyed abroad, but to supply something better among ourselves for our own students as well as to attract students from foreign lands. There are already magnificent educational facilities in Philadelphia, Baltimore, Chicago, St. Louis, Boston and elsewhere, but the wealth of material and the peculiar facilities offered by New York make it *par excellence* the American center of learning and of medical learning in particular. One is somewhat grimly reminded of that previous attempt to establish a Brooklyn postgraduate school of medicine in which most of us were professors and whose little life was not even snuffed out—it died almost aborning. It is quite evident that the present movement draws its strength from deeper springs and carries with it the promise of steady growth and broadening usefulness.

H. G. W.

PAN AMERICAN MEDICINE.

THE CORDIAL letter from Dr. Hermilio Valdizán, director of the *Revisita de Psiquiatria y Disciplinas Conexas*, which appears elsewhere in the JOURNAL, serves to focus attention upon a subject which has until recently received but too little attention on the part of the medical profession of America. The establishment of cordial relations with the Latin-American Fraternity

is a goal well worth striving for, not only for the practical results which always follow a better acquaintance with our neighbors, but for the broader object of developing a higher scientific spirit on this continent by cooperation among all its medical representatives. We have much to offer the physicians of Mexico and South America and we have much to learn from them. Hitherto there has been a disposition for South American physicians to turn to Continental Europe rather than to America, not only for their medical education, but for their literature as well. The rapid development of a better scientific spirit has brought with it a notable increase in medical journals and scientific articles published in Spanish and now the action of the American Medical Association in publishing a bi-weekly Spanish edition of the *Journal of the American Medical Association* emphasizes with great forcefulness the strides which medicine is making in South America. The *London Lancet*, commenting editorially upon this step, evidently regards it as of prime importance from an international standpoint, while private advices from representative South Americans only add to the conviction that any step tending to promote greater cordiality and a better understanding between the United States and South American countries is of the utmost importance to both. Indeed one has but to recall the scheme for colonization carried on by Germany in the south of Brazil and the wellnigh successful attempt of those colonists to set up a separate German Government, to realize that the future peace of the world is as much dependent upon the elimination of German ideals as it is upon the predominance of Anglo-Saxon military power. Coming at this time and under these conditions this letter from the editor of an influential Peruvian journal is both delightful and inspiring.

H. G. W.



CORRESPONDENCE



Revista de Psiquiatria

y disciplinas connexas

Gremios 435, Lima, Peru.

Lima, 16th Mai 1919.

My dear Doctor:

We are very much obliged for your appreciative letter of April 22nd, which we reply now.

We are very glad to place the LONG ISLAND MEDICAL JOURNAL on our exchange list and are also glad to cooperate in any way for a closer understanding between the medical men of North and South America.

We thank you very much for the exchange which the number April is received. We are sending you a copy of the first four numbers of our Revista and we expect of your kindness to send us the first three numbers of this year of your journal.

We shall also be glad to receive copies of works or reprints from you and of your friends of the "Associated Physicians of Long Island" for notice in the bibliographical section of our Revista.

Very sincerely yours,

HERMILO VALDIZÁN.



Obituaries



DEPARTMENT UNDER THE CHARGE OF WILLIAM SCHROEDER, M.D.

GEORGE EDWARD HENDERSON, M. D.

Dr. Henderson was born in Far Rockaway, L. I., August 27, 1884 and died in France, February 12, 1919. He was educated in public and high schools and his medical education was received at the Long Island College Hospital, where he was graduated in 1907. He was for a time physician to the Williamsburg Hospital, and at the time of his death was Captain in the U. S. A.

A member of the Medical Society County of Kings from 1907-13 and the Associated Physicians of Long Island from 1908-12. A member of Commonwealth Lodge No. 409, F. A. M., Orient Chapter No. 138, R. A. M. Clinton Commandery No. 14 K. T. and Kismet Temple, A. A. O. N. M. S.

He is survived by his widow Esther E. Brown.

FRANCIS JOSEPH DUFFEY, M. D.

Dr. Duffey was born in Hartford, Conn, June 9, 1874, and died at Brooklyn, N. Y., March 31, 1919. He was educated in the public and high schools and graduated M. D. from the Long Island College Hospital in 1896 and from the Brooklyn Law School in July, 1918. He entered the war service and held the position of Lieutenant Colonel. He was a member of the Kings County Medical Society from 1899-1900 and the Associated Physicians of Long Island from 1910-16.

WILLIAM ROBERT AUGUSTUS CARLEY, M. D.

Dr. Carley was born in Ellenville, New York in 1865, and died at Brooklyn, N. Y., March 11, 1919. He was the son of Robert Carley and Maria Lake. He was educated at the University of Michigan and Bellevue Hospital Medical College, where he received his degree of M. D. in 1888.

During his professional life he was physician to the Polhemus Clinic, Bethany Deaconess Hospital and the Brooklyn Hospital. A member of the Medical Society, County of Kings from 1889 and the Brooklyn Medical Society from 1895.

Dr. Carley is survived by his widow Emily A. Ring and a son Edward Albert Carley.

JOHN EDWARD WADE, M. D.

Dr. Wade was born in New York City in 1848 and died in Brooklyn, N. Y., January 10, 1919. He was the son of James M. and Eliza Ann Wade. He received his medical education at the New York University where he was graduated in 1871. He was a

member of the Medical Society, County of Kings from 1879-1906 and the Associated Physicians of Long Island from 1910-1919.

He is survived by a son Frank E. Wade and a daughter Miss Adelaide Wade.

GEORGE NEWTON FERRIS, M. D.

Dr. Ferris was born in Tarrytown, N. Y., Sept. 23, 1854, and died in Brooklyn, N. Y., January 28, 1919. He was the son of John M. Ferris and Mary E. Schoonmaker both of New York. His early education was received at the Erasmus Hall Academy and his medical education at the New York University and the Long Island College Hospital, where he received his degree in 1879. This was followed as interne at the Kings County Hospital from 1881-88. A member of the Medical Society, County of Kings in 1880-81 and physician to the Kings County Insane Asylum from 1888 to 1919 and the Flatbush Medical Society.

Dr. Ferris was married on June 19, 1884 to Katherine May Hills.

SAMUEL FRANCIS BROTHERS, M. D.

Dr. Brothers was born in New York City, October 29, 1864, and died in Brooklyn, N. Y., December 18, 1918. He was the son of Charles Brothers and Mary Eidenfield, both of Russia. He was educated in the public schools and the New York College of Pharmacy receiving the degree of Ph. G., in 1885, and that of M.D., from the College of Physician and Surgeons, N. Y., in 1890. During his professional life he was President of Bellevue Hospital Dispensary in 1890; Surg. to Mt. Sinai Dispensary, German Hospital, Columbus Dispensary, 1892-95, Beth Israel Hospital 1891. Prof. of Anatomy, N.Y. Post Graduate School of Midwifery; a member of the Medical Society, County of Kings from 1915-18.

Dr. Brothers was married on April 3, 1893 to Miss Fannie Ciner.

HAROLD MILNE FRENCH, M. D.

Dr. French was born in Brooklyn, N. Y., February 24, 1884, and died at Freeport, L. I., on October 18, 1918. He was educated at the public schools and graduated from the New York Homeopathic Medical College in 1913. This was followed as interne in the Flower Hospital. A member of the Tenth Regiment, N. G., N. Y., Police Surgeon of Freeport, L. I. and the Associated Physicians of Long Island from 1916-18. He was married to Miss Susie Griffinger of Shelter Island.

WALTER WILLIAM LOWELL, M. D.

Dr. Lowell was born in Long Island City, and died in Brooklyn N. Y., October 10, 1918. He was a graduate of Cornell University in 1911; this was followed as interne in the Wyckoff Heights Hospital. He was a member of the Medical Society, County of Kings from 1915-18, and the Associated Physicians of Long Island from 1915-18.

He is survived by his widow Alice, and two daughters.

LEONARD CASSELL MC PHAIL, M. D.

Dr. McPhail was born in Brooklyn, N. Y., in 1855, where he died October 16, 1918. He was graduated at private schools. His medical education was received at the University of New York, where he was graduated in 1876. For a number of years he was physician to the Brooklyn City Dispensary and Orphan Asylum, a member of the Medical Society of the County of Kings from 1883-1913. His father, the late Leonard C. McPhail was a member from 1852-67.

JOHN PETER HEYEN, M. D.

Dr. Heyen was born in Brooklyn, N. Y. in 1859, and died at Northport, L. I., on October 30, 1918. His medical education was received in the University of New York where he was graduated in 1883. He was married twice leaving three children, Mrs. E. Simpson, Miss Louise Heyen and John H. Heyen. A member Northport Lodge, I. O. F. and the Associated Physicians of Long Island from 1899-1918.

JEREMIAH DANIEL PHELAN, M. D.

Dr. Phelan was born in Carson City, Nev., and died in Brooklyn, N. Y., January 2, 1919. He was educated at St. Francis Xavier College receiving his degree of M. D. at the Long Island College Hospital in 1883. He was a member of the Medical Society, County of Kings in 1895-96.

EMANUEL JOSEPH LEAVITT, M. D.

Dr. Leavitt was born in Russia in 1877, and died in Brooklyn, October 24, 1918. He was educated in the public schools and was graduated from the College of Physicians and Surgeons of N. Y. in 1904. He was connected with the Wyckoff Heights Hospital, and a member of the Medical Society, County of Kings from 1906-18. The Associated Physicians of Long Island from 1910-18, and Cambridge Lodge No. 662, F. A. M.

He is survived by his widow Dorothy Jaffe.

DAVID WEBSTER MEYER, M. D.

Dr. Meyer was born in Brooklyn, N. Y., February 5, 1871, and died in Brooklyn, N. Y., October 24, 1918. He was the son of John C. Meyer, M. D. and Catharine Martin. He was educated in the public schools and was graduated from the Long Island College Hospital in the Class of 1894. This was followed as interne in the City Hospital. During his professional life he was surgeon to the Brooklyn Eye and Ear Hospital and the Home for Consumptives, a member of the Medical Society, County of Kings, from 1896-1916, Associated Physicians of Long Island from 1911-18. He is survived by a son Edward David Meyer.

ROBERT HARRY SCOTT, B. S., M. D.

Dr. Scott was born in Cornonstic, Scotland in 1886, and died at Peekskill, N. Y., October 15, 1918. He was the son of Peter Scott, M. D., and Belle Noble, both of Scotland. He was educated at the Polytechnic Institute and Amherst College, receiving the degree of B. S. in 1907. His medical education was received at the Long Island College Hospital, where he was graduated M. D. in 1910. This was followed as interne at the Brooklyn Hospital in 1911-13.

He held the position of Lieutenant in the Naval Reserves, and at the time of his death was Master of Acanthus Lodge No. 719, F. A. M. A member of the Medical Society, County of Kings from 1911-18, American Medical Association and the Brooklyn Pathological Society.

He is survived by his widow Florence Whitsel.

FRANK HENRY KNIGHT, M. D.

Dr. Knight was born in Brooklyn, N. Y., June 24, 1876, and died in Winchester, England, October 28, 1918. He was educated in the public schools and the Polytechnic Institute. His medical education was received at the College of Physicians and Surgeons, N. Y., where he was graduated in 1899. This was followed as interne in St. Johns Hospital and Sloane Maternity. During his professional life was physician to the Orphan House, Home of Friendless Women, Surgeon to St. Johns, Kings County and Swedish Hospitals.

A member of the Medical Society County of Kings from 1901-18, Associated Physicians of Long Island, 1915-18, Brooklyn Surgical Society, Brooklyn Pathological Society and Alumni St. John's Hospital.

Dr. Knight was married on February 6, 1902, to Miss Lisette Sweden Lambert of Brooklyn. Dr. Knight was Captain in the United States Medical Reserve Corps at the time of his death.

W. S., Sr.

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1919, No. 8

AUGUST, 1919

2 PAGES

TEXT-BOOK OF RADIOLOGY.

A TEXT-BOOK OF RADIOLOGY (X-RAYS). By Edward Reginald Morton, M. D. Second Edition, enlarged and thoroughly revised. St. Louis, C. V. Mosby Company, 1918. 264 pp. 39 Illustrations. 36 Plates. 8vo. Cloth, \$4.50.

This work is intended largely for the beginner in this branch of medicine. The work is elementary in scope and a large part (about one-half) of the volume is devoted to physics and description of apparatus. Like most English works on this subject, this volume contains a great amount of detail about induction coils and very little concerning the high tension transformers, which are so generally used in this country.

The chapters dealing with technique of examinations are as a rule good, as are those on radioscopy, X-ray photography and interpretation. Regional radiography is covered satisfactorily except for the digestive system. The illustrations here are as a whole very poor and the subject matter insufficient. The final chapter is devoted to X-ray therapy and the subject is briefly and intelligently discussed.

J. G. W.

ESSENTIALS OF SURGERY.

ESSENTIALS OF SURGERY. A Textbook of Surgery for Student and Graduate Nurses and for those interested in the Care of the Sick. By Archibald Leete McDonald, M. D. Phila. & London, J. B. Lippincott Company, 1919. 265 pp. Illustrated. Cloth, 12mo. \$2.00.

There has been a tendency in recent years for the text books for nurses to become more scientific and accurate.

It is possible for this to be carried too far. Many people feel that a sharp line should be drawn between the knowledge necessary

for intelligent and enthusiastic nursing and that necessary for the physician to possess.

This book is accurate, goes into great detail and covers a large field.

The criticism might be offered that the many pages devoted to anatomy would better be omitted from a book on "The Essentials of Surgery," but, the author is an anatomist.

The wording might be simpler and the style more interesting.

It would seem more valuable as a work of reference than as a text book for class use.

HENRY F. GRAHAM.

NERVE CONTROL.

NERVE CONTROL AND HOW TO GAIN IT. By H. Addington Bruce. Fourth Edition. New York & London. Funk & Wagnalls Co., 1919. 307 pp. 12mo. Cloth, \$1.00.

This book, which re-arranges in comprehensive form a survey of mental and nervous health, is in response to requests from readers of the author's "Daily Talks" in a group of American and Canadian evening newspapers, known as the Associated Newspapers.

The subjects treated travel the well worn topics such as nerve strain, worry, habits, both mental and otherwise acquired, hurry, worry by others, brain fag, facial expressions, insomnia, bashfulness, pessimism, optimism, morbid states, insanity, etc.

The reader will find plentiful advice helpful to nerves generally. Exercise and relaxation, breathing and posture, mental gymnastics, sunshine and contemplation, duty and play, spring tonics, use of mirror, self analysis and numerous other topics are written about in the total of 58 chapters.

The book is meant for the laity and will, like similar ones, be helpful to some and misapplied by others.

However, all nervous patients are advised to see a doctor.

E. M. S.

PSYCHOTHERAPEUTICS.

PSYCHOTHERAPEUTICS. By Frederick H. Gerrish, (and others). Third Edition, Boston, Richardson G. Badger. 86 pp. 12mo. Cloth, \$1.00.

This small volume consists of nine chapters each a paper by a different author read at the American Therapeutic Society in 1909. Each writer discusses one phase of the subject. The work is quite complete insofar as this kind of a topic can be put into print. There is much repetition and each writer although endeavoring to write independently reiterates thoughts of the others.

The work is concise and complete and is both interesting and pleasant reading. Like most of the works on psychotherapy a few cases in which good results were obtained are given as examples for the whole realm of the psychoses and kindred disorders. It is the reviewer's impression that all works of this character lack genuine scientific value because they are indefinite in their arguments and repeat in other words ideas expressed many times by all the authors of abstract topics. Psychotherapeutists in most of their articles are very iconoclastic. They take for granted what they think or what they wish others to think is an established law. There is no room left for argument—alho they give no statistics—no absolute kind of treatment for a given case. They, themselves, are not sure what they wish to do or how they will accomplish a definite result. And, what is worse still, they wonder at a good result when they obtain it.

The product given in this little work deserves consideration especially because of the reputation of the authors and the diversity of titles chosen. Although nothing new is presented in the book it is an epitome of the best thought on this subject, and a general knowledge of the whole field can be obtained in one hour's careful reading.

SIEGFRIED BLOCK.

SEX HYGIENE.

SEX-HYGIENE. A Talk to College Boys. By Frederick Henry Gerrish, M. D., LL. D. Boston, The Gorham Press, (Richard G. Badger), 1917. 51 pp. 12mo. Cloth, 60 cents.

If college students have more discretion than those of a younger age then the calm ethical appeal of Dr. Gerrish for a continent life is a fine book to be placed into their hands. President Hyde, of Bowdoin, is so impressed with its value that he intends to distribute it to incoming classes. In this statement is contained the opinion of others to whom the mature vision of proper sexual relations has been vouchsafed. The volume is not intended for boys to whom sex-hygiene is yet a terra incognita, hence it does not contain the usual amount of physiologic data common to other books on the same subject. For this reason the argument is a social one as well as an appeal to his conscience of the reader. There are some older men who could read it for profit to others—their wives, for instance. It is a good book.

A. F. E.

BOOKS RECEIVED.

NERVE CONTROL AND HOW TO GAIN IT. By H. Addington Bruce. Fourth Edition. New York and London, Funk & Wagnalls Co., 1919. 307 pp. 12mo. Cloth, \$1.00.

TUBERCULOSIS OF THE LYMPHATIC SYSTEM. By Walter Bradford Metcalf, M. D. New York, The Macmillan Company, 1919. 216 pp. Plates. 8vo. Cloth, \$2.75.

DIETETICS FOR NURSES. By Fairfax T. Proudfit. New York, The Macmillan Company, 1918. 444 pp. 8vo. Cloth, \$2.25.

SEX AND SEX WORSHIP (Phallic Worship). By O. A. Wall, M. D., Ph. G., Ph. M. St. Louis, C. V. Mosby Company, 1919. 598 pp. 372 Illustrations. 8vo. Cloth, \$7.50.

THE OPERATIONS OF OBSTETRICS, Embracing the Surgical Procedures and Management of the More Serious Complications. By Frederick Elmer Leavitt, M. D. St. Louis, C. V. Mosby Company, 1919. 466 pp. 248 Illustrations. 8vo. Cloth \$6.00.

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NO. 9

INTESTINAL INTUSUSCEPTION.

Joshua M. VanCott, M. D.

Brooklyn, New York.

JOHN HENNESY, Aet. 45, Irish, W. Admitted: 30th August, 1918. Died: 31st August, 1918 at 4:15 a. m.

Diagnosis. Intestinal Intususception, Differential, Acute Gastritis, Acute Hemorrhagic Pancreatitis.

Chief Complaint. Vomiting, diarrhoea; onset sudden, duration 3 days; no previous similar trouble.

Past History. Occupation, retired U. S. sailor. No drugs, no alcohol to excess, until lately. Operated 5 years ago for gastric ulcer, gastro-jejunostomy. Has had trouble with his stomach ever since. Denies venereal disease.

Present History. Had been well until 3 days ago, when he drank 4 (?) glasses of beer and suddenly started to vomit. Vomiting continuous ever since of a blackish fluid, with no particularly bad odor. Diarrhoea with the vomiting, many fluid stools, no macroscopic blood. Has colicky abdominal pains, which seem to be more in the R. U. Q. and traveling around to the back. No jaundice, no loss of weight. At the Naval Dispensary he was given bismuth and the diarrhoea stopped; but the vomiting continued. Urination normal, until the 28th, since then has not urinated.

On admission to Hospital. Patient was in shock, T. 97.2 P. 120, small, compressible, R. shallow, sighing. Blood count: W. C. 28,800, Polys 82%, Lymph. 17%, Eosin. 1%. Urine by catheter 3 oz., high color, Spec. Gr. 1025. Alb. trace.

Physical Findings. A middle aged, fairly nourished man, seemingly in acute distress, critically ill, vomiting incessantly a blackish material. Vomitus contained blood-stained detritus, no erythrocytes. Occult blood positive. Head, neck and chest negative.

Abdomen. Scaphoid, shows limited motion with respiration, no rigidity, dull on percussion, no pulsation, generally tender on pressure. Just to the left of the median line, in the U. L. Q. and stretching from the free border of the ribs to a point just below the umbilicus, is a mass, seen and felt, which is quite tender on pressure and of boggy consistence. The skin is cold and clammy. The face looks drawn and pale, with an almost Hippocratic expression. Extremities negative. Genitals negative.

Analysis. The sudden onset, with acute abdominal pain, vomiting and diarrhoea, together with shock points toward some form of intestinal obstruction. The absence of jaundice or evidence of any

pathological condition of the gall bladder and the presence of a mass to the left of the median line seems to reduce the possibilities to two: i. e. intestinal obstruction, or acute hemorrhagic pancreatitis. The latter often closely resembles, in its semiology, perforation into the peritoneal cavity: ileus is present and shock severe, with rapid collapse. In the present case, there was no ileus and the vomiting was of a high fecal character. While the vomiting continued, the diarrhoea had ceased by the time the patient reached the hospital, which led to the conclusion that any obstruction must be high up in the intestine. This opinion was further backed by the fact that practically the entire intestinal tract was in collapse.

Conclusion. Taking all of the available facts into consideration, we committed on an intestinal obstruction, probably intussusception, high up in the gut. Operation was urged upon the patient and declined. He was, at that time, slightly delirious and not mentally responsible. The exitus occurred at 4:15 a. m. of August 31st.

Autopsy. 31st August, 1918. The body is well nourished; rigor mortis well developed; no oedema; considerable post-mortem settling of blood in dependent portions. There is an old scar of operation, running to the left and parallel with the median line above the umbilicus. No eruptions, or marks of violence. The abdomen is scaphoid.

Diaphragm. 4th space left; 4th space right.

Sternum. Normal.

Ant. Mediastinum. Normal. Both lungs somewhat retracted.

Pleura. Both pleural cavities obliterated by old organized adhesions. Pericardium. Normal, contains oz. 1 of clear straw-colored fluid.

Heart. Somewhat enlarged, epicardium a trifle opaque. Mitral orifice and valve normal; Tricuspid orifice and valve normal; Aortic and Pulmonary cusps normal. Moderate early atheroma at the base of the Aorta.

Myocardium. A trifle dark, firm, otherwise normal.

Lungs. Left somewhat small, crepitates feebly on pressure, pleura everywhere thickened with old adhesions; on gross section, cut surface dark in color; the organ is moderately congested, and oedematous. Right resembles left, excepting that it is darker, heavier, more congested and oedematous.

Peritoneum. Appears normal. Omentum is adherent to the anterior abdominal wall at the side of the incision above described.

Small Intestine. Collapsed from the upper portion of the duodenum throughout its entire length.

Stomach. Dilated. The upper jejunum lies within the stomach, having telescoped into it, seven inches being visible, making fourteen inches in all. This intussuscepted gut is gangrenous. The general gastric mucosa appears fairly normal.

Kidneys. Appear normal, but for moderate cloudy swelling.

Spleen. Appears normal.

Appendix. Had been removed.

ACCIDENTAL CARDIAC MURMERS:

Sensu Strictiori, the term accidental cardiac murmur is restricted to the systolic or diastolic bruit, which has no anatomical relation to the orifices or the valves of the heart; in other words, in which there is neither anatomical nor functional disorder of these structures, which modifies the circulation of the blood through the

heart. They are heard in hearts showing no alteration in size or location and with no history of general disease, calculated to produce anatomical lesions.

Just eighty years ago, Joseph Skoda, in his celebrated monograph on "Auscultation and Percussion," described accidental murmurs emanating from the aorta as follows: (Jos. Skoda, 2te Auflage, Wien 1844, S. 198, sq) "In the aorta all kinds of bruits occur, which are found inside of the ventricle. They occur in the aorta, when the intima of this vessel is possessed of roughness, excrescences, cartilage, chalk concretions, etc.; the aorta may be normal in diameter, narrowed or widened."

This statement, Skoda says, is confirmed through opportunity afforded him by the elder Rokitsansky of making many postmortem observations in the pathological department of the Stadisches Krankenhaus in Vienna.

It is probable that accidental murmurs are much more commonly due to these anatomical conditions than we realize and that a certain proportion of the alleged haemic bruits are in reality not caused by blood conditions.

The case which is presented tonight is unique, not only because of the shape of the excrescence, but also for the reason that it is single. I have seen many vegetations on the aortic intima, but they are multiple in the rule, usually rough and rarely pointed, as this one is. The practical importance of the specimen lies, it seems to me, in the fact that it helps to visualize the problem of accidental murmurs.

CASE HISTORY: ^

John Malloy, aet. 50:60.

Admitted to the Brooklyn Hospital Jan. 7th, 1919. By the ambulance.

Died Jan. 11th, 1919.

Malloy: He was suffering with a fractured skull and cerebral hemorrhage. In spite of operation he failed to regain consciousness and died four days after admission to the hospital.

The autopsy revealed a heart that was perfectly normal for a man in the laboring class. It was drawn somewhat to the left by old pleuro-pericardial adhesions. The valves and orifices were all found to be normal, save a little early atheroma. On the intima, above the sinus of Valsalva, was found an excrescence, somewhat pyramidal in shape, the base being attached to the intima and the apex projecting out into the lumen of the aorta.

In the clinical history it is recorded, that "the apex is in the 5th space, the heart enlarged to the left, overacting and no definite murmurs. The House Surgeon who wrote the history could not be quite sure in his mind that there was or was not a bruit at the base. He told me he was inclined to the opinion there was not. As I only saw the case at the autopsy, it is not possible for me to say whether there was a systolic bruit at the base; but I venture to say that, if the man had been in a condition to admit of a careful examination a soft murmur would have been detected. In any event, this specimen is a classical exemplar of what has been regarded by experts in physical diagnosis, ever since the times of Laennec and Skoda, as one of the etiological factors in accidental cardiac murmurs.

REPORT OF A CASE OF SENILE ESOPHAGEAL STRICTURE.

Albert F. R. Andresen, M. D.

Brooklyn, New York.

A. F., female, aged 65 years, with no occupation, applied at Brooklyn Hospital Dispensary February 1, 1919. Her *family history* was negative. *Previous history*: Pleurisy and pneumonia 30 years before and again 3 years before. Right breast amputated by Westbrook 9 years before, for carcinoma.

Present history: For 4 or five months she had been troubled with a gradually increasing dysphagia—solid food seemed to stick in the esophagus at about the level of the tip of the ensiform. During this time she had been troubled with dyspnea, paroxysmal coughing spells, precordial pain and palpitation and loss of weight. Her bowels had been regular. No history of the swallowing of caustic. Two months before, she had been a patient at the Brooklyn Hospital with a complete obstruction of the esophagus, even water being regurgitated. At that time an X-ray showed the obstruction to be in the middle third of the esophagus, with little or no dilatation above it, and a ragged appearance suggesting carcinoma. Esophagoscopy by the laryngologists failed to show the point of obstruction, the patient being too restless for a good examination, but after the attempt the patient began to swallow perfectly, and was allowed home a few days later. Fluoroscopy having shown no delay to the barium column, a diagnosis of esophagospasm was agreed upon.

Following her discharge from the hospital, the patient had been eating, but only soft food, and an insufficient quantity of that, and on applying at the clinic had lost considerable weight, weighing only 91 pounds. Her bowels were still regular.

Examination disclosed a small, emaciated woman, with cataracts in both eyes, enlarged glands of neck, false teeth, and dry tongue. Her chest showed areas of dulness, but no râles. The scar of the breast amputation was clean and soft. The heart showed a well compensated mitral regurgitation. The blood pressure was 175 systolic, 82 diastolic. Her abdomen was flabby and there was an indefinite sense of resistance under the tip of the ensiform, which the writer felt called for gastroscopy to determine its cause. Her extremities were negative.

The Wassermann reaction was negative, blood pressure was negative, but the urine, although only consisting of 650 cc. in 24 hours, showed 1.3 per cent sugar. The stool showed no occult blood.

Esophagoscopy by the writer disclosed at a distance of 10 inches from the teeth a smooth, hard constriction, with spasmodic contractions above it, but no evidence of ulceration or new-growth. The patient was then taken to Dr. H. H. Janeway, at Memorial Hospital, New York, and he confirmed the writer's findings, stating that the constriction was an idiopathic one, due to senile, sclerotic changes. He advised the passing of bougies as often as necessary to keep the stricture open.

The patient has since been doing very well, except that an occasional spasm causes temporary dysphagia. The stricture admits easily an 18F tube, and has thus far not required dilatation.

OVARIAN HEMATOMA.

Report of a Case Due to Traumatism.

Edward D. Ferris, M. D., F. A. C. S.

Brooklyn, New York.

MR. PRESIDENT and Members of the Medical Society of Bay Ridge:

In choosing a subject for tonight, I thought the one to be presented would be of interest especially from the few cases I found reported and from a medico legal standpoint.

The origin of ovarian hematoma is shrouded in obscurity, literature on the subject is very sparse and affords little that is of value in this respect, however by searching I found something of interest.

Considering the anatomical situation of the ovaries, protected as they are by the bony framework of the pelvis and suspended by the broad ligaments, it is difficult for these organs to be injured by indirect violence. They may be injured however by bimanual examinations trying to force an adherent uterus into position, also by passing sounds or other instrumentations, or as in the case I report tonight, by a violent fall.

Hematoma of the ovary has been defined as a pathological accumulation of blood within the ovary varying in amount from a mere trace to an extravasation aggregating several hundred cubic centimeters.

The effusion may take place on the surface of the organ, or more deeply in its substance. The former location owing to delicacy of structure not permitting large accumulations without rupture, while in the latter situation the dense resisting tunica albuginea may gradually become distended, forming a large unilocular cyst, filling the pelvis and displacing the contained visera.

Montgomery says: When the hemorrhage is small, it is known as ovarian apoplexy and when large or frequently repeated so that the ovarian stroma is practically destroyed and a blood cyst is formed it is called hematoma.

In making a diagnosis of these tumors of the ovary, we must be careful not to make the mistake of calling an ectopic gestation of the rupture of a Graafian follicle, hematoma of the ovary.

The diagnosis is difficult and in many cases impossible; usually all that can be made out on examination is some enlargement and fixation of the appendage on the affected side with tenderness on pressure in the region of the enlargement. A hematoma is invariably firmly fixed to surrounding structures by peritoneal adhesions. These are often so dense that they have to be cut through in the removal of the ovary. Thus these tumors frequently rupture in the separation. The fluid contained in the ovary is always thick, black or dark brown altered blood, of tarry consistency, with little or no odor.

(1) Dr. Magnus A. Tate in discussion says: I have been in practise fourteen years have operated and assisted in operations many times, and so far have only seen one case. It has been my good fortune to have seen hundreds of sections, many by noted men, and I never saw a case in their hands.

(2) Dr. Ambrose Johnson relates: I have seen quite a number of abdominal operations and I have never seen but one case of

hematoma of the ovary. I have seen Dr. Reid operate four or five hundred times and during this number of operations I saw him operate upon but one of these tumors.

(3) Dr. Handfield Jones removed an ovary of the size of an orange from a woman who suffered from profuse and exhausting menorrhagia. The hemorrhage which had started a year previously after a serious railway injury, had reduced the patient to a condition of profound anemia and debility. The loculi of the diseased ovary were filled with liquid blood in varying stages of decomposition. After the operation the patient rapidly improved and no further hemorrhage reported.

L. O., female, age 26 years, born in Norway, unmarried, lady's maid. Admitted to Norwegian Hospital in my service, June 19th, 1913. Previous history not important, had always been a well nourished perfectly normal girl, menstruation twenty-eight day type, no history of a previous injury or illness. Family history negative.

On May 15th, 1913, while entering an elevator which did not come up to floor of building by two feet, a box was utilized for a step which broke under her weight, her right leg going between elevator and wall of shaft, barking her shin, throwing her violently on her right side, to floor of elevator. She was removed to a hospital where she remained for about a month, when she was transferred to Norwegian Hospital. Outside of pain in injured leg her complainings were trivial.

On examination of right leg I found a wound three inches long by half an inch in width, on crest of tibia, midway between knee and ankle, the bone was exposed and there was considerable periostitis. The wound was treated, patient kept in bed until entirely healed. Aug. 12th, 1913 patient discharged from hospital.

As soon as she began to walk and move around a pain developed in right side, menstruation irregular, profuse and painful. Thought she could work if she had a position where she could sit, but she could not do that for she felt there was something pressing up that was sore. She had headaches and was nervous, loss of appetite and weight, painful defecation. These symptoms gradually grew worse until June 15th, 1915, she came to me for advice twenty-two months after discharge from the hospital. Said she could endure her sufferings no longer, would have sought relief earlier but was without funds.

Physical examination. Heart, lungs and blood count normal.

Pelvic examination. A large, tender, fluctuating mass was found on right side of pelvis filling Douglas's cul-de-sac pushing uterus to left. Left tube and ovary apparently normal. She readily consented to operation.

June 25th, 1915, patient entered hospital.

June 26th I opened her abdomen through medium incision. A large fluctuating tumor was located on right side and occupying Douglas's cul-de-sac. On sweeping finger around the tumor I found it adherent to the peritoneum posteriorly and inferiorly. The tumor was about the size of a large orange. The cyst wall was composed of normal ovarian tissue. An attempt was made to separate the adhesions, which ruptured the sac, permitting the escape of a quantity of dark brown or chocolate colored fluid. The sac was freed from its adhesions, raised up together with the tube and transfixed near its base with ligature carrier and ligature tied, a piece of iodoform gauze packing was placed in cavity to prevent oozing of

blood at site of adhesions. Left ovary was quite normal, with the exception of two small cysts, each about the size of a pea, containing straw colored fluid, which were removed. The appendix found kinked and was also removed. Wound partly closed with layer sutures, silk in skin. Patient made uneventful recovery. Discharged from hospital Aug. 7th, 1915.

Pathological report. A brownish red fluid, not coagulated. The sediment contained numerous red blood cells and some fibrin and detritus.

As long as the patient remained quiet in bed she suffered no pain, the organs evidently accommodating themselves to the new conditions, but as soon as the upright position was assumed and she became active, her symptoms began.

I am convinced that hematoma of the ovary is a rare disease no matter of what origin and could only find but one case reported due to traumatism.

Bibliography.

1. Lancet Clin. Cinn. 1905 New Series LIV687.
2. Trans. Obstet. soc. Vol. XXXIII, page 27.

SUBCUTANEOUS VACCINATION IN CHILDREN.*

LeGrand Kerr, M. D.

Brooklyn, New York.

IT was in December, 1912, that I first performed vaccination by the subcutaneous method. Just previous to this, I had conceived the idea that more protection would be offered against infection following vaccination if the virus could be introduced with less trauma. With this idea in view, I began to use it subcutaneously. The instrument used is the ordinary hypodermic syringe with a slip-on needle. The advantage of the slip-on needle is this: if several vaccinations are to be performed, sufficient virus may be mixed in the barrel of the syringe and a new needle slipped on for each child. After the barrel of the syringe is filled with a normal salt solution the instrument is boiled with as many needles as there are children to be vaccinated. When the water has become quite cool, one drop of virus is introduced into the barrel of the syringe for each five minims of water contained therein. Slight shaking makes a perfect mixture. With the needle adjusted, the instrument is ready for use. As the object is to introduce one drop of the virus for a vaccination, five minims of the mixture are injected. If one vaccination is performed, only five minims are prepared with one drop of virus. The site chosen for injection is thoroughly cleansed with alcohol and wiped dry. The point of the needle is then introduced as nearly parallel with the skin surface as possible, so that before the virus is released the point of the needle may be raised and its exact situation observed through the skin. This is the most important part of the

* Read before the Brooklyn Medical Society, May 16th, 1919.

operation because the object is to place the virus under a protecting layer of skin but to introduce it nowhere else.

When I first reported the results of my method at a meeting of the Kings County Medical Society, in October, 1915, I had been using three sites for vaccination: (1) the angle of the scapula, (2) the upper portion of the buttocks, and (3) the outer aspect of the thigh about its middle third. I now use only the latter. Experience has proven that this is the best situation in children because in spite of the fact that it seems to be the most exposed, it is the best protected area during their usual activities and play. The course of a vaccination done by this method does not differ in any particular from one done in the usual method of scarification, except that the inflammatory areola is less widespread and the itching practically absent. While the vesicle ruptures in the large majority of instances in vaccination as commonly performed, in the subcutaneous vaccination there is rarely a rupture but a gradual transition from the unbroken vesicle to the protecting scab. The resulting scar is typical but smaller. Are there any dangers that might occur in using this method? There are none with the one exception of the possibility of injection into a vein. The precaution of raising the point of the needle before releasing the virus entirely eliminates this as the needle is observed entirely through the stretched skin. But has the method any distinct advantages? There are several. First: in children, the rapidity of the procedure is of no small importance. As there is no scarification, no rubbing in of the virus and no delay while the virus is drying, an uncomfortable, if not terrifying procedure which takes from three to five minutes to perform is accomplished in from three to five seconds. The clothing may be adjusted immediately and the child released. Second: primary cleanliness is secured because there is no scarification. Third: protection is secured against the usual itching of the first few days following vaccination because there is not sufficient trauma to excite it and to the child no itching means no scratching. Fourth: later in the course the unbroken vesicle merging into the protecting scab offers further protection against infection. Fifth: the evident cleanliness of the method and the rapidity of its performance appeals strongly to the parents and their consent to its performance is more readily obtained.

The procedure undoubtedly diminishes the opportunities for primary and secondary infection. Whether my method is used or some other, the time has approached when we must discard scarification. Subcutaneous vaccination has been tried out in so many hundreds of cases and over so long a period that I have no hesitancy in bringing it to your consideration as a method having no dangers if the one precaution noted is observed and possessing so many clear advantages over the more common method of scarification that it at once by comparison becomes a safer and less trying procedure.



EDITORIAL



THE PHYSICIAN'S RELATION TO THE SOCIAL PROBLEM

AS DAY follows day and the columns of the daily press report more and more of social unrest, as strike succeeds strike and as the problems of social justice are studied and analysed in the magazines, the question obtrudes itself more and more forcefully as to the doctor's place in this problem which is growing more and more acute. At the June Meeting of the Associated Physicians of Long Island a Resolution was presented and passed directing the Publication Committee to see that no more radical socialism should be published in the Society's Journal. The very fact that such a motion could be presented is the best evidence of the need for the continued agitation of this particular topic. The brain that can imagine that forbidding the discussion of a topic can thereby abolish the danger is allied to the ostrich. Merely closing one's eyes, ears and mouth and imitating the Nikko monkeys who see no evil, hear no evil and speak no evil, is the surest way of permitting the evil to grow. The forest guard who refuses to see the smoke of the early fire and declares that it is only mist is no more neglectful of his duty than is the citizen of today who closes his ears and his eyes and his mouth and refuses to believe that there is a great social unrest. Ever since the day when men gathered themselves together into communities, that social unrest has been felt; the servant has always envied the lord and the lord has always regarded himself as superior to the servant. That spirit burst forth at Runnymede and crystalized into the Magna Charta and slowly since that time there has been a growing recognition that the under dog should have his chance. Little by little the doctrine has spread until the socialistic teachings of Marx have focused the idea that every citizen of the State should enjoy all the privileges that the community can offer and have opened a vista to those who work for hire that is too alluring to be talked down. The rights and wrongs of the working classes, the question of abstract property rights and other details of this vast problem have no place in the present discussion. The underlying thought now is that there IS a great social unrest and that there are suddenly compressed into the present moment questions which would normally settle themselves as a result of evolution within two or three generations, but which the intense upheaval of the present time has converted into an overwhelming climax.

The situation is here and cannot be denied; if it be overlooked, so much the worse for those who in their blindness fail to see it. It is as keen a question for the physician as for the layman. In the changing of the old order, which in the past has been slow and comparatively painless, we have moved along with changing conditions and accommodated ourselves to them. Now, when change presses upon change and crisis upon crisis,

and evolution becomes so rapid that it hurts, it is the duty of the physician to study himself in his relation to the social order and to endeavor not only to direct, as far as he may, the changes which threaten him into the least turbulent channels, but to forestall too radical involuntary changes by forming public opinion as best he may for his own advantage. The present struggle is a struggle of selfishness—the selfishness of those who have against the selfishness of those who have not. Reduced to its lowest terms the social struggle resolves itself into this. There are three great classes into which the country may be divided. In the first are those who have wealth and opportunity and whose teachings from childhood have served to confirm them in the belief that it is theirs to enjoy as they please. The second class includes those whom necessity compels to work for what they get and who, realizing the drudgery of daily toil, whether it be toil of the hands, or of the brain, or common service, seek to escape from it and who are naturally envious of those who possess what they have not. Between these two comes class three; men and women of all positions in the social scale, poor as well as rich, who recognize both the selfishness of the rich and the discontent of the poor and are seeking some middle course which will insure reasonable justice for rich and poor alike. Until class number one can be brought to recognize the selfishness of their point of view and class number three to realize that the mere possession of wealth does not bring with it the full realization of happiness; and until the councils of class three shall cease to be divided and a common plan of action is agreed upon, the outlook for an early peaceful settlement of the situation is a discouraging one.

It is well nigh impossible for anybody to realize a situation that he has never experienced; whence comes the difficulty of finding a common ground between the rich and the poor. It is true that in this land some poor men have achieved great wealth, but actually they are very few and it is also true that many that have been rich are now poor. But they do not by association help the poor who have never been rich and are therefore not to be reckoned as a helpful factor. The professional classes, combining, as they do, many who have achieved wealth from poverty and many more who are striving for something more than a competence, should be immensely helpful in elaborating a better understanding, could they but be persuaded to give serious consideration to the problem. There are many who feel intensely pessimistic and who dread lest the proletariat unrest may not have already acquired such momentum as to make reasonable councils of no avail. The bloodthirsty tone of many contemporary publications such as "Bread and Freedom," a Russian newspaper, whose Editor, Peter Bianki, was arrested on August 16 for inciting to violence, shows how far this spirit has already advanced, and this is but one example of the extreme type of widespread discontent. To refuse to see this and to deny its existence is suicidal: to refuse to discuss it, the height of folly. Without intelligent knowledge of what the enemy is doing how can any commanding officer conduct his campaign successfully? The physician, standing as he does in an intimate relation with people of all shades of opinion is capable of a tremendous influence

in such a crisis as the present and it is his duty to himself and to the land in which he lives to inform himself as best he may so that he may know conditions as they are and help by councils of moderation to swing to a just balance these opposing forces.
H. G. W.

A CONVALESCENT COLONY FOR THE TUBERCULOUS

FOR many years it has been evident that no adequate provision exists for the subsequent care of those cases of tuberculosis that have left sanatoria in an arrested condition. This statement is particularly true for that very large class of patients whose means are inadequate to live without remunerative occupation and whose return to their previous positions would in all probability cause a fresh outbreak of their disease. Several years ago this matter was discussed editorially in this JOURNAL, and at the time the problem was reviewed from the point of view of those patients who were of necessity selfsupporting or compelled to contribute to the support of others, and the suggestion was then made that an industrial centre upon some considerable tract of land should be planned for where patients of this sort might find some gainful occupation within their physical capacity.

It is with the keenest satisfaction that one reads the report presented by Dr. H. A. Pattison on behalf of the Federal Board For Vocational Education for an Agricultural and Industrial Community for Arrested Cases of Tuberculosis and Their Families. Dr. Pattison has elaborated what seems a most practical solution of this question, urged on by the needs of tuberculous soldiers returning from the great war. As these few supply but a small part of the terribly large number of tubercular patients of the middle class, the plan which Dr. Pattison presents should be considered in its application to the entire country. It is unfair to the doctor's report to epitomize it, for it is admirably concise and lucid, as well as most convincing in the brief pamphlet in which it is presented.*

The main essentials of the scheme are elaborated around the central idea of a tract of land within easy access by water and rail of a metropolitan centre, to which manufacturers may be attracted and factories established whereby remunerative positions may be made available for the inhabitants of the village which is to be created. This will be incorporated in such a way that its control may be democratic, perpetuated beyond the possibilities of political mismanagement and made into a community that shall be at once attractive to live in and yet be practical from the financial side.

Based upon the success of Saranac Lake as an incorporated village in which a large proportion of the residents are cured or arrested cases of tuberculosis, who have found gainful occupation as tradespeople of all sorts, it is perfectly evident that any similar community could be made to offer not only the advantages of Saranac, which has developed spontaneously along the lines of least resistance, but by careful planning and under the control of a properly organized governing commission, it could be

developed to supply practically everything of advantage which the suburban residents of New York City now enjoy, plus the opportunity to expand to meet the needs of classes of employees that Saranac cannot provide for. Dr. Pattison's estimate of original cost, of income from rents, of expenditures for government and upkeep, etc., are extremely conservative and in these days when the huge gifts to the Red Cross have shown what America can do with comparatively little urging, should offer no bar to the immediate institution of this plan which he has proposed. His quotations from Canadian and British sources, as well as from American publications emphasize the complete practicability of this plan which should appeal keenly to practically all patients who have succeeded in controlling their tuberculous condition.

There will be a few, doubtless, who would object to living in such a community, just as there are those who object to living in a leper colony because of the idea of being labeled. This objection, indeed, has been raised and such a comparison has been made, but it is utterly unfair because many of our communities are today largely inhabited by tubercular sufferers who mingle on a social equality with those who are not so afflicted and a colony of this sort would be made up of families whose breadwinner might be tubercular but themselves not affected. Surely there could be no stigma attaching to any one who is leading a life of useful productiveness as a selfsupporting and selfrespecting citizen.

This plan should receive the most widespread publicity and be discussed as fully as possible, for it a practical solution of a tremendous problem which so far has not been touched upon in the practical treatment of milder tuberculosis, except in such an occasional inadequate way as only the more to emphasize the need for a national plan of action.

Since writing the above, Senate Bill No. 2444, proposing to create the Commission on Rural and Urban Home Settlement, has been received from United States Senator Wadsworth, the object of which is included in Section three and quoted herewith in full: "That the Commission on Rural and Urban Home Settlement is hereby authorized and directed to make investigation of the following subjects and, from time to time, report to Congress its conclusions and recommendations as to additional legislation it may deem advisable:

Immediate farm settlement for returned soldiers, sailors, and marines; industrial housing; allotment of land to returned soldiers, sailors, or marines, veterans of the European war, and to the widows and orphans of soldiers, sailors and marines who lost their lives in the European war; the encouragement of cooperation, for any or all of the above purposes, between the United States and the several States, and societies, associations, corporations, or persons; and to furnish to the above such information, advice, or suggestions as may be deemed advisable for the purpose of putting into operation the recommendation of the commission and the laws that may be enacted by Congress making them effective."

The breadth of scope of this Section could easily include the question of post-tubercular settlements and for that reason the

*The Agricultural and Industrial Community for Arrested Cases of Tuberculosis and Their Families.

proposition should receive careful thought. But on the other hand, so much is included in this proposition and so many opportunities for wastefulness are opened up, that while doubtless the Bill is admirable in many respects, it should be considered carefully before adoption.

H. G. W.



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Thursday, April 3rd, 1919, at 8:30 p. m.

The President, Joseph P. Murphy, M. D., in the Chair.

Program.

CASE REPORTS:

1. Ectopic Gestation.
2. Mesenteric Thrombosis.
3. Cases of Empyema treated by closed method.

Frederic C. Paffard, M. D.

Case 1 discussed by Dr. Herman F. McChesney.

4. Decompression of Spinal Cord for fracture of Dorsal and Lumbar Vertebrae. Patient. X-ray.
5. Psammoma of Spinal Cord. Specimen.

William V. Pascual, M. D.

Case 4 discussed by Drs. Frank D. Jennings and William V. Pascual.

7. Cases illustrating use of Parnham-Martin Band. X-rays.

Herman F. McChesney, M. D.

Discussion by Drs. James M. Downey, Mathias Figueira, Burr B. Mosher, Richard W. Westbrook, Joseph P. Murphy and Herman F. McChesney.

8. Report of death following blood transfusion.
9. Intestinal Obstruction due to gall-stone. Specimen.

Richard W. Westbrook, M. D.

Case 8 discussed by Drs. George I. Miller, Mathias Figueira, Herman F. McChesney and Richard W. Westbrook.

Case 9 discussed by Drs. Mathias Figueira, John M. Scannell, Earl H. Mayne, Joseph P. Murphy and Richard W. Westbrook.

JOSEPH P. MURPHY, M. D., President.

FRANK D. JENNINGS, M. D., Secretary.

Ectopic Gestation.

Frederic C. Paffard, M. D.

The first case is that of a woman 28 years of age, who had an ectopic.

The main reason for reporting this case is that it followed an operation for sterility which I did seven months before then, and I was considerably concerned lest the sterility operation had something to do with the cause of the ectopic, but as far as we could tell, it did not.

This woman had had a great deal of dysmenorrhea always before the first operation and to a certain extent afterwards. Her menstrual history was

perfectly normal since the first operation up to the time of her second hospital admission, which was on the 19th of March of this year.

The history was something like this: that she last menstruated on December 23d, 1918, after which there was a period of four weeks of comfort, and then she began to have some pain in the lower abdomen. This was followed by "spotting" and the usual signs of an ectopic. We operated on her on March 20th, 1919, and found a large mass occupying the left lower quadrant and center of the abdomen, reaching almost to the umbilicus. We found a ruptured ectopic, tied off this mass, evacuated the blood clots, and her convalescence was perfectly smooth. She went home two days ago. She is doing all right.

The only point about this case particularly was that she had been married for five years before the stem operation was done. She had not been pregnant at all up to that time. She did get pregnant afterwards, but it was an ectopic, and I wondered whether anybody else had had that experience with a sterility operation.

Mesenteric Thrombosis.

Frederic C. Paffard, M. D.

The second case which I desire to report is that of a woman, said to be 62 years of age, but who looked much older, who came into St. Peter's hospital on December 4th, 1918, with this history:

While in church last Sunday the patient felt dizzy and on reaching home she was very weak and was compelled to go to bed. Since then she has been unable to talk clearly. There was no numbness and no loss of muscular control. There were no bladder nor rectal symptoms. She remained in this rather dazed mental state for about a week longer and then gradually improved. On Christmas day she felt pretty good and ate rather heartily. On the next day she complained of some vague abdominal distress and they gave her a dose of licorice powder. After one movement of the bowels she suddenly had very violent pain in the abdomen. I saw her on the morning of the 27th. Her mental faculties were fairly acute. She could answer questions. The abdominal tenderness was greater than any abdominal tenderness I have ever seen. I had never seen a case of mesenteric thrombosis and I had in mind a statement of Dr. Rushmore's some time ago that the pain of an embolus was greater than that of any other pain that he knew of. I had never seen such exquisite tenderness of the abdomen as this woman showed. The pain and tenderness were worse than in an ovarian cyst with a twisted pedicle.

We took her up to the operating room and opened the abdomen, made a right rectus cut and found sanguineous fluid which had exuded and the small intestine was found gangrenous, and there was a large infarct in the mesentery.

We removed this gangrenous gut, did a Murphy button anastomosis, and while before we began the operation she had a good deal of pain, it was worse afterwards.

She lived for four days and then apparently had another embolus go somewhere in her head because she went off quite suddenly.

The interesting point in this case particularly was the very great pain and tenderness in the abdomen connected with this mesenteric thrombosis. I have never seen any person kick up such a row as this woman did. She was a quiet woman with a lot of pain.

Cases of Empyema Treated by Closed Method.

Frederic C. Paffard, M. D.

The following cases of pulmonary empyema were treated by closed intercostal drainage on my service at St. Peter's Hospital, in the fall of 1918.

There were 12 cases, of which there were 6 males and 6 females. The ages ranged from 4 to 37. Five of the cases were below 16 years; two were 18; two were between 20 and 30 and two were over 30 years of age.

In 11 of the cases the existing condition was secondary to a previous in-

fluenza or pneumonia, or both. The time elapsing between the onset of the primary condition and the day of operation for empyema was as follows: In one case, two weeks; in one case, three weeks; in three cases, four weeks; in two cases, five weeks; in one case, three weeks; in three cases, four weeks; one case, eight weeks; and in one case, sixteen weeks. One case gave no history of a primary focus of infection.

In seven of the cases the right side was affected and in five, the left. In two of the cases, physical signs and x-ray plates indicated the presence of fluid on both sides. Paracentesis showed purulent material on one side only in each case respectively.

The diagnosis was made in each case by physical signs. In five cases, x-ray plates were taken and each showed the presence of fluid. In each case a pleural puncture was performed before operation.

These cases, as we all know who treated them, were pretty sick. Many had areas of unresolved pneumonia, and they were not very promising subjects. Some of them were sick a long time. Two cases in particular had a great dislocation of the heart, so much so that we deemed it wise to aspirate them several times before operating on them. In one case, 20 ounces were removed, and in the second, 10 ounces.

The operative treatment carried out, was as follows:

In addition to the usual surgical instruments there was used a sterile drainage tube and a two-hole rubber stopper, which fitted a bottle of 500 c. c. capacity. The drainage tube consisted of fairly stiff rubber and was about one-quarter of an inch inside diameter. The tube was long enough to reach a glass tube which passed through one hole of the rubber stopper, the bottle being placed on the floor at the side of the patient's bed. The glass tube connected to the drainage tube passed down the bottle to within an inch of its bottom. In the second hole of the rubber stopper was placed another glass tube which extended about an inch down the bottle.

In each case, the operative field was painted with tincture of iodine and the aspirating needle was inserted to locate the pus, usually in the post-axillary line, seventh or eighth intercostal space.

In nine of the cases cocaine anesthesia in the skin surrounding the aspirating needle was employed. In three of the cases light ether anesthesia had to be used. A two and a half inch vertical incision was made which passed an equal distance above and below and along the side of the aspirating needle and extended deep to the ribs. An incision was then made between the aspirating needle and the upper margin of the rib below, thus going through the intercostal muscles down to the pleura. A small nick was then made in the pleura, through which one end of the drainage tube, held between the branches of an artery clamp, was introduced. About four inches of the tube was inserted. The branches were then loosened and the clamp removed from the pleural cavity. A second clamp was placed on the tube just below its exit from the chest wall, thus preventing any air from entering the pleural cavity. (We were very careful to keep the air out as far as we could).

It might be of interest to say here that we all know how busy the hospitals were at that particular time of the year and it was a source of very great comfort to us to have so little trouble with the dressings, because all the pus ran into the bottle. The tube rarely got blocked, and it seemed to me that these cases got better a little quicker than under the old-fashioned method of treatment.

The wound was then closed by uniting muscle to muscle with a continuous catgut suture and the skin was closed with interrupted sutures of silkworm. One of the silk-worm strands was passed through the tube in order to anchor it in place. Sterile gauze was then applied to the chest wall over the line of the incision and encircling the drainage tube.

The bottle, filled with Dakin's solution and attached to the drainage tube, was then elevated to the level of the chest or slightly higher and tilted over somewhat. After the column of air was displaced in the drainage tube, the clamp was removed and some of the fluid was allowed to flow into the pleural cavity, and then the bottle was quickly lowered to the floor.

After the operation, the fluid in the bottle was renewed daily, but before doing so, a clamp was put on the tube. After changing the fluid, the clamp was removed and the pleural cavity was irrigated by elevating the bottle to the level of the chest or slightly higher and tilted over somewhat, the bottle being kept at such level until three-quarters of the contained Dakin's solution ran into the pleural cavity; then the bottle was lowered to the floor. This daily treatment was continued in each case until there was

very little discharge in the bottle. In two cases, after there was no discharge in the bottle for several days, with normal temperature and pulse, the tube was completely removed and the opening in the chest wall closed with adhesive plaster. Both cases were discharged cured from the hospital, one within twenty-six days, the other within twenty-nine days.

In the remaining ten cases of the series, when for several days there had been little discharge in the bottle, with normal temperature and pulse, the bottle was detached and the tube cut short so that about one-half of one inch was outside of the chest wall. The patient was then allowed out of bed and daily irrigation of the pleural cavity was performed with a glass syringe, using about 200 c. c. of Dakin's solution. Of these ten cases nine patients were discharged cured. One case went home at his own request, still draining freely.

Two cases died, one within six days of acute pneumothorax and the other within ten days, of gangrene of the lung.

I am indebted to Dr. Louis Berger, House Surgeon, to whom much of the success is due.

Ectopic Gestation.

Frederic C. Paffard, M. D.

DR. HERMAN F. MCCHESENEY:

"Not particularly on the question of ectopic, but I thought it might be of interest as showing the results following the use of a stem pessary. I had a case come into the Brooklyn Hospital that had been operated on six months before and a stem pessary inserted, and she had complained for five months of pain in the right side, eventually giving a line of bladder symptoms. On cystoscopic examination we found a pus tube had made a communication with the bladder. Of course, in ectopic cases we feel that we must get an ectopic because of an inflammatory condition of the tube. Here was a case that had practically the same operation as Dr. Paffard's case of sterility of five years' standing, but infection following the operation about four weeks post-operatively. The stem pessary had been left in for five weeks, infection had occurred and had made itself felt for about one week prior to removing the stem."

Decompression of Spinal Cord for Fractures of Dorsal and Lumbar Vertebrae.

I. A.—age 33,—single—Norwegian Sailor—admitted to Holy Family Hospital, August 11, 1918, giving a history of having, at 2 a. m. while climbing a ladder leading to the roof, slipped and fell backwards, a distance of about 30 feet, landing on his back. He was unconscious for about 15 minutes.

CHIEF COMPLAINT ON ADMISSION—pain and swelling of back and inability to move both legs.

Family and previous history negative, except that he admitted to an acute Neisserian infection which was very active on admission.

EXAMINATION revealed a man in good general condition. There was a well marked deformity of spinal column in lower dorsal and upper lumbar regions, with much ecchymosis and hematomatous infiltration. He presented a flaccid paralysis of lower extremities involving legs below knees chiefly.

Abdominal reflexes preserved.

Knee jerks and achilles reflexes lost both sides, also anal reflex.

No Babinski nor ankle clonus.

Incontinence of bowels.

Retention of urine.

Sensory-anesthesia over sacral, median gluteal and perineal regions and dorsum both feet up to ankles.

Analgesia-plantar surfaces both feet and extending up posterior surface of both legs.

Hypesthesia and loss of temperature sense, both legs and thighs up to ilias crests.

Profuse urethral discharge.

X-ray examination showed fracture dislocation of 11th and 12th dorsal and 1st lumbar vertebrae.

OPERATION: performed 24 hours after admission. Median longitudinal incision along vertebral spines from 8th dorsal to 3rd lumbar. Separation of fascia and muscle on either side of spinous processes. Exploration in region of 1st lumbar and last dorsal revealed fractures of 11th and 12th dorsal and 1st lumbar vertebra in region of lamina and transverse processes extending into spinal canal. Laminectomy of these 3 vertebra. Exposure of cord by longitudinal incision through meninges, revealed edematous condition of pia over cord. Pia was punctured to relieve edema. After further exploration of cord below and above, the dura was sutured with a continuous fine chromic. The muscle and fascia and skin layers sutured separately with no drainage.

The **GROSS PATHOLOGY** encountered was: Hemorrhagic infiltration of fascia and muscle layers over lower dorsal and lumbar regions. Complete laceration of interspinous ligament between last dorsal and first lumbar (spines). Fracture and depression of lamina and transverse processes of 1st lumbar and 11th and 12th dorsal. Edema of the pia. Posterior projection of body of 1st lumbar vertebra.

The patient reacted well—stitches removed on 10th day—primary union of wound.

Bladder condition was nicely controlled by catheterization followed by injection of Argyrol 10%, 10 c. c. into bladder every 8 hours and internal use of Urotropin.

Two weeks later a small bed sore in lower sacral region developed which took about one month to heal. There was a very slow return of sensory and motor function in legs. It required 3 months for him to regain sufficient control to be able to walk with crutches. At this time he had fairly good bladder control, but muscular effort of walking caused urinary incontinence, necessitating the use of a rubber urinal.

He remained in hospital 6 months and on discharge showed still some weakness in flexor muscles of feet and slight vesical incontinence.

Spinal Cord Tumor. Operation. Specimen.

S. C.—aet 69 years—Nat. U. S.—admitted to Holy Family Hospital, June 29, 1918.

FAMILY HISTORY: A sister who died at the age of 28 years, 5 years ago is said to have had trouble similar to that from which the patient is suffering.

PERSONAL HISTORY: The patient was the fourth child in a family of six; has been unusually healthy prior to present illness. She had a common school education and is said to have been an average student. After leaving school she worked as a dressmaker and followed this even after her marriage at the age of 25 years. She stopped dressmaking about 15 years ago. Her married life was very unhappy because of her husband's excessive alcoholism; she separated from him 9 years prior to his death; she had two children, one of whom died at two and one-half years and the other a school teacher who is still living. She has always been of a lively, generous disposition and her habits have been good. Menopause about ten years ago with no unusual symptoms.

PRESENT ILLNESS: In early part of 1916 began to complain of numbness in knees and toes—later of shooting pains in knees. In July, 1917 numbness extended up to her waist line, and she had a dragging sensation in abdomen. There was much constipation and indigestion with intestinal flatulence. She was treated for intestinal toxemia and improved greatly as far as her general condition was concerned, but in December, 1917, she experienced great difficulty in walking and her right leg dragged somewhat. Shortly after this she noticed that in walking her right leg gave way under her and she had to be supported. In January, 1917, she began to experience loss of rectal control and the bladder became incontinent. In February, 1918, she began to experience weakness in the left leg and was unable to stand. In March, 1918 she was free from pain, except that occasionally there was an aching sensation in the entire left leg and thigh. At times during the past six months there has been a noticeable flexion of the right leg and thigh which is entirely involuntary and for the past three months this has become a more constant feature and accompanied by periodical spasms of calf and thigh muscles and she has had absolutely no power in her legs and thighs. She has never suffered from headaches or vomiting and has had no difficulty in vision, except that she has used

glasses in reading for the past ten years. At the present time she describes drawing in the abdomen which seems to be a sort of a squeezing sensation. This is more marked on the right side. Her general condition has continued good and the condition in her legs and thighs have prevented her from lying in bed for the past two months, during which time she has remained constantly sitting in a chair day and night.

PHYSICAL EXAMINATION: The patient is fairly well nourished and developed elderly female, showing general senile changes but yet rather well preserved. The pupils are equal, regular and react well to light and accommodation. The cranial nerves are intact. Heart slightly enlarged to the left, lungs are negative. There is a marked oedema of both legs. The patient sits in a chair presenting a flaccid paralysis of both lower extremities and is unable to make any movement in them. There is no evidence of any trophic change in the extremities. The abdomen is distended and there is no movement of the abdominal muscles. The upper extremities show no evidence of paralysis, the grips are strong and equal and the upper deep reflexes are equally active. All of the abdominal reflexes are absent. The knee jerks are diminished, the right is much diminished and is much less active than the left knee jerk—the achilles jerks are not obtained. Babinski and clonus are absent. There is well marked hypaesthesia to all forms of sensation beginning at about the level of the sixth dorsal segment and extending down both lower extremities. The hypaesthesia is much more marked on the right side of the abdomen and in the right leg and thigh. There is no loss of position sense. Blood pressure systolic 150, diastolic 110. Blood and spinal fluid Wasserman negative, cell count 5, the spinal fluid shows a light yellowish tinge, globulin negative.

Two X-ray pictures of the dorsal, below the fifth dorsal and lumbar vertebrae shows them to be free from disease. Examination of the eye grounds was negative. Urine examination negative.

Although Dr. Leahy and myself had felt assured of the diagnosis of a spinal cord tumor several months before admission, we had denied her operation because of her advanced age and evidence of poor surgical risk. The patient became dissatisfied with the fate of sitting there waiting for death and insisted on operation. July 12th, spinal fluid showed clear. Globulin, negative, no cells, Wasserman reaction, negative. The blood count normal, 73.5% Polymorphonuclear neutrophiles.

OPERATION: On July 15, 1918—Median dorsal—6" incision—from second dorsal spine down to the sixth dorsal spine. Vertebral groove on either side of spinous process exposed by separating muscles. Spinous processes and laminae of the fourth and fifth dorsal vertebrae removed. Cord exposed in canal. Dura opened and the presence of congested membrane directed suspicion towards the third dorsal laminae. These laminae were removed and a tumor mass, size of a hazel nut, was felt beneath the dura. Opening in dura extended upward, exposing the round, encapsulated tumor attached to the cord, situated more to the right side, pressing on the posterior spinal roots. Tumor and capsul were readily removed by dissection. The cord below tumor looked normal, although thinned out. Canal closed with continuous chronic gut, soft parts and skin closed in three layers. Rubber dam drain inserted in deep muscle layer.

GROSS PATHOLOGY: Encapsulated tumor (intradural) of spinal cord beneath right laminae of third dorsal vertebrae, pressing on posterior spinal roots.

Following operation the patient reacted poorly—having very rapid pulse and temperature varying between 101 and 105 during the first week, retention of urine, and abdominal distention. She had great relief from her pains and spasms in legs and was able to lie in bed with comfort. During the next week, although pulse and temperature had improved she began to show trophic disturbances, bed sores on sacrum and over great trochanters and areas of discoloration about heels and toes. Her sensory symptoms did not improve, in fact hypesthesia become more marked from waist line downward. The wound, although not showing evidence of infection, did not heal. Rectal control was lost and the same marked flaccid paralysis of lower extremities persisted. A lumbar puncture showed blood stained fluid—no cells—no micro-organism. Differential white cell count 9,600. Polys 88%. Urine much pus and marked nephritic changes.

Later the wound showed a copious serous discharge.

The patient died 18 days following operation. Consent to remove the cord was obtained. The segments below site of tumor which at operation had given the appearance of a very normal cord but much smaller in size,

now showed marked maceration for several inches. This transverse myelitis, whether due to removal of pressure or infection, explained the symptoms as found after the operation.

Pathologist reported tumor to be Psammoma.

FRAZIER collected statistics on 330 spinal cord tumors—of these 13 (about 1 in 25) were psammoma—all 13 occurred in the thoracic region—12 in females and 1 in male—9 of the 13 occurred between ages of 40 to 50 years.

He states that psammoma, like fibroma is a sharply defined tumor, easily removed, of a slow growth, so that recovery after operation may be anticipated even after several years duration. It is a hard tumor, round or oblong in shape, originating in the arachnoid or dura, and although it never invades the cord, it often causes serious alterations, sometimes even the destruction of an entire segment. It seldom becomes larger than an almond. He claims that it is not considered as a special type of tumor, but classified whenever possible, according to the type of its component cells, not according to some chance calcified produce therein found.

EWING defines psammoma as a perivascular endothelioma in which the cells which surround definite vascular paths, usually in a concentric fashion, have become calcified.

The pathological report in this case is as follows:

Macroscopic, a small tumour and sac about the size of a white bean, of a greyish-white color and soft consistence, on section.

Microscopic, consists of concentrically laminated calcareous bodies or whorles bound together by a somewhat delicate connective tissue network. This connective tissue is highly vascular, and the endothelium of the capillaries shows a tendency to proliferation.

Kettle on Pathology of Tumors says:

The Psammoma is an endotheliomatous tumor growing in connection with the cerebral membranes.

Careful examination of the different stages in the formation of a psammoma shows that it is simply an angioma in which the proliferated endothelial cells have become infiltrated with calcium salts. The calcareous infiltration is quite a secondary process and is not peculiar to the endotheliomata, for it may be seen in other neoplasms.

Decompression of Spinal Cord for Fractures of Dorsal and Lumbar Vertebrae. Patient. X-Ray.

William V. Pascual, M. D.

DR. FRANK D. JENNINGS:

"What were your neurological findings on discharge as checked up with the condition at your first examination?"

DR. WILLIAM V. PASCUAL:

"We didn't note it in detail, but there has been a general improvement all along the line. He had complete loss of motor function. That is gradually returning. At the time of operation it seemed as though we had a right to expect a more rapid return of function than we got afterwards and, as I mentioned before, I was inclined to think that the delay in the operation may have had a great deal to do with the return of function not being as rapid and not as complete. He has now almost a complete return of sensory function. He has slightly diminished sensation on the soles of the plantar surface of both feet and on the dorsum of the feet also, and he has some slight vesical weakness and for a long time he had a constant dribbling, but that has improved so that now he really only has his incontinence when he makes muscular effort, as in walking. He wears a urinal constantly. As he claims, he has made a marked advance in his feelings, his sensations since leaving the hospital. He left the hospital about six or seven weeks ago, and he was stating tonight outside that his feelings, his sensations have improved very decidedly since he went home.

"With regard to his rectum, he tells me that as long as his bowels are fairly well constipated he has no weakness there, but if he has any loose condition of the bowel, he loses his control somewhat. That is about all there is to it. He can stand well, but he cannot stand without supporting his

knees. He can stand up straight if he flexes his knees slightly and can hold his balance pretty well.

"Of course, this is not a case that one would have like to have presented at this time, but as it was in conjunction with the other laminectomy, I thought it was a good case to bring in at this time. I would have preferred to have waited until he had recovered more, as I think he will."

Cases Illustrating Use of Parnham-Martin Band. X-Ray.

H. F. McChesney, M. D.

I was disappointed in two things tonight. Three of the patients whom I hoped to have here for some reason have not appeared, and the plates in the second case have been misfiled and I could not locate them.

The first case, a man, G. R., 70 years of age, admitted to the Brooklyn Hospital on July 15th, 1918, three days after injury.

The diagnosis was a fracture of the neck of the right femur. The case showed such a marked displacement and we were unable to get the limb in a position that would give it a chance to unite, so an open reduction was decided on. July 20th an incision five inches long was made over the great trochanter, in line with the shaft, revealing a comminuted fracture with two small pieces, one of the lesser and one of the greater trochanter. The head and neck had a long spicule pointing downward. The shaft had a broad, raw surface pointing backward (leg rotated internally).

The leg was straightened, bringing the raw surfaces of the shaft against the projection from the neck and fastened there by encircling the two segments with a Martin band. The portion of the greater trochanter fell into natural position. The cast was removed on August 11th and the leg suspended in a wire frame to give more ease and comfort in the hot weather.

I will show you the plate, I don't know whether you can see it at a distance or not, but the head and neck of the bone are intact, just as though the whole greater trochanter was torn away, leaving a raw surface, triangular in shape, with a spicule running down here from the neck, that spicule containing a portion of the lesser trochanter. This plate shows the line of approximation is fairly perfect, this long spicule falling into place and the band holding it there.

Patient made a perfectly good recovery. The knee was rather stiff having been so long in a cast, but he was a man well along in years whose habits were not particularly good.

Second case:

This man was 54 years of age (E. W. M.) admitted to the Brooklyn Hospital on July 31st, 1918. He had a fracture of the right tibia in two places, one at the junction of the middle and lower thirds and the other through the very upper end of the tibia. There were three fractures of the Fibula.

On July 31st, after seeing the x-ray an open reduction was decided on because it was practically impossible to get the lower fracture of the tibia in good position.

An incision 5" long was made over the subcutaneous portion, the periosteum was stripped back and the line of fracture found to be oblique. By approximating end to end the bone came into good position, and a Martin band was applied. The wound was closed and a plaster cast applied from toes to hip. No drainage, primary union was obtained. Cast was removed September 24th, 1918. Small amount of callus, leg in excellent condition.

Third case:

A man, Russian, 39 years of age, admitted to the Brooklyn Hospital on December 11th, 1918, with a diagnosis of fracture of the femur. Leg put up in Buck's extension with 26 pounds weight for eight days. X-ray at the end of that time, taken with the Buck's extension on with the 26 pounds weight, in bed with fracture-board, showed poor position.

On December 19th an open reduction was done. An incision 6" long, was made over the middle third of the outer side of the femur which was found to be fractured diagonally, with interposition of the soft parts and about an inch of shortening. The soft parts were pushed aside, old clots removed, traction was applied and approximation obtained, then a Martin band was applied, wound closed. A plaster cast was put on. In this case

the cast was removed on January 29th, 1918, which was about six weeks. Patient was without support from then on.

In this particular case you could scarcely feel any thickening along the bone, and there was very little reaction in the soft tissue. The muscles had become quite soft from having been put up in a cast for so long. When patient was discharged Feb. 11th he was able to walk very well.

Fourth case:

Man, Russian, 44 years of age, admitted to Brooklyn Hospital Dec. 11th, with fracture of right tibia. We did a closed reduction under anaesthesia and put him up in a full length cast including the leg and thigh. I can show you picture of his original fracture and also the result we got of this reduction. This is one view of the limb put up under anaesthesia, from this line it seems rather good, but the other plate shows this as a result.

On December 14th did an open reduction. Fracture was at the junction of the lower and middle third of the right tibia. An incision 3" long was made over the outer border of the tibia. Fracture was oblique with a portion of fibrous tissue between the ends which was removed. A Martin Band was applied subperiosteally. The periosteum and soft parts were carefully approximated with chronic gut over the area of fracture, and a plaster cast applied. The cast in this case was removed on January 22d. Very little local reaction and you could scarcely feel any callus thrown out on the bone, there was very firm union as I can show you. In this particular view the fragments have gone in so closely that it is rather hard to see, unless you are close up where the fracture line comes.

Patient discharged on February 5th, 1919.

Fifth case:

A woman aged 44 years, a very heavy individual, admitted to the Brooklyn Hospital Dec. 25th, with a diagnosis of fracture of the left tibia and fibula. She was reduced under anaesthesia and had a cast including foot, leg and thigh put on as tightly as possible, patient then sent to ward. A short time after this patient told me when she tried to move in bed something had slipped in her leg.

X-ray taken, this plate shows you the lateral view. Certainly it was not in a position one would like to leave.

Open reduction on December 28th. We found an oblique fracture, ends of the bone were relatively smooth with a fold of periosteum between them. The periosteum was loosened from the entire circumference of bone, and the fragments were placed in apposition and a Martin band applied an equal distance from the terminal end of the fragments. Plaster cast applied.

Patient discharged on the 22nd of January and she was still wearing the cast. Limb seemed in good condition.

Sixth case:

A man admitted to the hospital Jan. 24th. Comminuted fracture of the right clavicle, which was particularly hard to hold in position.

Open reduction Feb. 4th. Incision 4" long over the right clavicle, found three loose fragments, two were removed, the periosteum was stripped back from both ends of the bone. The third fragment was fastened to the distal end of the clavicle by a Martin band and stretched across the open space to the proximal end of the clavicle and fastened by a second Martin band. Wound closed.

The first picture shows but two loose fragments. This second picture from the standpoint of the X-ray looks like a particularly poor result. Clinically the clavicle looks very much like the one on the other side, as far as the contour was concerned, but the picture was taken from below and it looks as though there was a great deal of angulation, but clinically the result was satisfactory. Patient had a rather prominent clavicle on both sides.

Patient discharged February 20th, sixteen days after his bands were put on.

Seventh case:

A man, 34 years of age, admitted to the hospital Feb. 5th, with a diagnosis of fractured skull and a comminuted compound fracture of the femur.

Put up in a Buck's extension, with weight, until March 8th. The weight was not heavy enough and his side splints not long enough. He was hard to handle, removing his dressings repeatedly.

This is his first picture which shows a good three inches of shortening. Now this picture is the result we had obtained up to March 8th, a period of 21 days. This is the oldest one of the cases I have down, as a rule we try to get, in fairly early. There was not much actual callus present, but the whole limb was indurated and thickened, there were some deposits of bone

beginning. If you will notice, this particular piece of bone is rotated. This end belongs up on the femur, this other end belongs down in here. We had the problem of rotation of that particular piece.

An incision 6" long was made over the outer aspect of the thigh, which went in above the two places of compounding and cut down to the area containing the fragments. One large fragment which had rotated on its axis perpendicular to the femur, was placed in position between the ends of the bone and after they had been separated by traction, a long, heavy Lane plate was fastened to the femur above and below the area of fracture then the Lane plate and a portion of the upper section of the femur were clamped together with a Martin band, to prevent bending of the plate. The periosteum was very slightly disturbed.

Patient cut his cast twice. I subsequently had an X-ray taken and he is put up in a very good cast now enveloping the pelvis and the entire length of the leg, including the toes. The position of the fragments is almost identical with this, excepting that you do not see the line of clips, they have been removed.

In each and all of these cases we have attempted to take care of the fracture in other ways, often because it would seem to be following the ordinary way of handling such cases and we have not attempted to band the cases on general principles unless they have given us difficulty in other ways. We have had no infections and primary union with all. One case we drained, the first one, an old man 70 years old. I put a drain in for 48 hours, the sinus was a long time closing, but it did not cause any bone necrosis and there was no trouble around the band. I think a drain is a mistake in these cases. In all my cases I have had no temperature and no necrosis that I know of.

The one point which I would like to bring out in these cases in general, is the comparatively small amount of callus we have had. Whether that is good or bad is I think a question which can only be determined by taking a series of these cases and following them afterward to really ascertain if a small amount of callus would make a strong union. I myself think it will as long as the band is in position, because these cases after they are banded heal very firmly and you can pick up the limb, shake it and jar it and it seems to stay right in position.

The bands are put on by means of a clamp which draws them over tight. We try as far as we can to put them on subperiosteally and I think one reason that we do not have undue callus is because we try to get as good an approximation of the periosteum as possible and then do a layer closure, and the watchword in closure is the absolute obliteration of space.

Cases Illustrating Use of Parnham-Martin Band. X-Ray.

Herman F. McChesney, M. D.

DR. BURR B. MOSHER:

"This is a very interesting presentation of a very interesting subject—fractures treated by a comparatively new method. I think we have all had trouble in treating fractures and getting good results. Of course the functional result of a fracture sometimes is rather surprising when you look at it from an X-ray standpoint. The result in these cases is so remarkably good that we should congratulate Dr. McChesney on his bone surgery. I know I cannot compare favorably some of the results I have had with these shown here tonight. I think the oblique fractures are particularly adapted to the use of the Parnham-Martin band technique. I have used the Lane plate, and it seems to me sometimes it is putting a good deal of iron under the skin. The whole thing is to hold the fractured bones in apposition, and the method best suited to bring that about, is the one which must be adapted to each individual case."

DR. JAMES M. DOWNEY:

"I was very much interested in Dr. McChesney's series and he is to be congratulated on his results, and yet I feel that in that case of compound fracture with the Martin band and the large Lane plate we have a case that we might watch with considerable interest, for there are few cases of Lane's plates with so much iron in them as in this case that get union. As you know, I confine myself mostly to introducing a wire or nail in my open operations, and I feel that the Martin band does not supersede this treatment. The band, I am sure, is very good in oblique fractures, but so much iron placed in a wound predisposes only to non-union and infection. It must be

borne in mind that there is very little callus in the union of these fractures, and in looking at the fracture one wonders if they are as firmly united as necessary."

DR. MATTHIAS FIGUEIRA:

"I think Dr. McChesney has given us a fine illustration of what can be done in that class of fractures in which other methods fail to produce apposition and secure retention of the fragments. I think that the tendency of surgery is more and more, every day, to resort to open operation in such cases. In a similar manner years ago we were slow in doing the open operation for fracture of the patella, and now the open method is used to the exclusion of other treatment. In cases in which a fracture cannot be reduced and after trying proper means, failure is imminent, I think the open treatment is indicated. In the cases that the doctor showed the band is better, in my judgment, than the Lane plate or the nails or the wire. It holds the fracture perfectly firm and I think that is one of the reasons that there is so little callus in these cases, the fragments are held perfectly quiet and firm. Of course, there are cases in which I don't think the band is as good as the Lane plate. I have reference to cases in which the fracture is a square fracture and the ends are broken off right across and there is no beveling and no obliquity upon which one can fasten the band. In those cases I think the Lane plate is a better device than the band.

"Much has been said against the Lane plate, but those of us who have seen Lane's work agree that if we all could treat fractures by means of the Lane plate with the same care that Lane does, our criticisms would not be so severe and our results would be better. Of course, it requires a great deal of skill and ability, and so it does in the cases that the doctor presented to us tonight. They are great successes and they are very fine, and yet I do not suppose if they were the general run of cases the success would be so fine and so complete. Skill and practice and experience of course, all help in these cases."

DR. RICHARD W. WESTBROOK:

"I think it is a very interesting series of cases. It shows the value of the Martin band, because it can be used the same as the Lane plate. It is adapted to oblique cases, which are difficult to hold, even with a Lane plate, and difficult to replace without open operation. The bands are light and strong and easily applied and they are not likely to loosen as do the Lane plates, there being no screws here, and they may be left indefinitely.

"It seems to be the fashion on the part of a good many to take the Lane plate out. That is a simple matter to do in plates that are superficially located, but it is a difficult matter in some cases where the plates are not so located. This light band may be left in. I think it is a very excellent device and I think that this series of plates shows very excellently how it may be used. In Dr. McChesney's hands I think it works out beautifully, and I think it will work out well in most hands."

DR. JOSEPH P. MURPHY:

"As I understand it, the general proposition, in the presence of compound fracture, is that it is not considered good surgery to insert a Lane plate, and that it is considered better to try to convert a compound fracture into a simple fracture before applying the plate."

"It is not the proper plan, ordinarily, to use non-absorbable foreign substances in a compound fracture or a fracture that is already open to infection, unless one uses it distinctly for the purpose of merely keeping fragments in apposition for a time. I have used Lane plates, not rarely, in compound fractures, just to hold the parts together, where I could not tie them with chromic gut or some other means, with the idea always in mind of taking the plate out when it had served my purpose.

DR. JOSEPH P. MURPHY:

"Lane distinctly states that, in the presence of compound fracture, his plate is not to be used."

DR. JAMES M. DOWNEY:

"As I understand it, it was a compound comminuted fracture three weeks at time of operation, so it could not be such a 'simple' compound fracture if it was still compounded three weeks after treatment."

DR. HERMAN F. MCCHESENEY:

"Yet, post-operatively, we got primary union and the compounded places healed."

DR. JAMES M. DOWNEY:

"I was trying to show that in a case like that with a Lane plate and a Martin band, the chances of getting an osteomyelitis were very much in-

creased. That is the point I was trying to make. Maybe I did not make it very clear."

DR. HERMAN F. MCCHESENEY:

"On the other hand, we had a femur three inches short and very poor apposition."

DR. JAMES M. DOWNEY:

"I understand that. It was not the Martin band I was objecting to. It was simply that I thought they were useful in the accessory treatment of fractures, but the use of the Lane plate at that time was what I had in mind."

Report of a Death Following Transfusion of Blood, Due to Hemolysis.

This case is reported because of the great need of arriving at the truth as to the risk of blood transfusion. Bernheim, in his work on Transfusion, mentions the fact of a surgeon telling him that he knew of three unpublished deaths due to hemolysis following transfusion. There is an idea circulating at the present time that anyone with little experience may safely do transfusion by the present simple methods.

My own knowledge of blood transfusion would lead me to insist that it should never be done, except in great emergencies, without previous laboratory tests of the compatibility of the bloods of the recipient and donor; and that even after these are found to be favorable, one should still be on his guard lest symptoms of incompatibility arise in view. In the case reported herewith, careful agglutination and hemolysis tests were made by an experienced laboratory man who has made many similar tests. It was in no sense an emergency case, and 24 hours were allowed to elapse to complete the compatibility tests before the transfusion was done.

The donor was a healthy male Hebrew of about 28 years, who had been used several times in a period of 18 months, as a donor, for other patients in the N. Y. hospitals. He had a slight limp said to have been the result of some trouble in his hip joint in childhood, but it had never troubled him since. His Wasserman was negative.

The recipient had never been transfused before, nor received any treatment with serums. She was a woman of 41 years, greatly blanched out as a result of excessive hemorrhages from the vagina over a long period, but especially in the preceding six weeks before entering the hospital. The hemorrhages were supposed to be due to submucous fibroid tumors of the uterus, and not to have any malignant element. I was asked to transfuse her by one of my colleagues, who hoped to get her to a point where an operation might safely be undertaken. She had been confined to bed for some ten days before the transfusion, and on that morning was apparently improved over her previous great depression. She was extremely pale, her heart somewhat enlarged, with murmurs, her kidneys showed a trace of albumen, her temperature was normal, and her hemoglobin estimate was 12%.

It was my plan to use 500 c. c. of blood containing 2.5% of sodium citrate. This amount was easily taken from the donor, with no clotting, and thoroughly mixed with 50 c. c. of a 2.5% freshly prepared sterile sodium citrate solution. It was poured into a salvarsan reservoir through a gauze strainer, and slowly passed into an arm vein of the recipient.

The recipient was nervous, and upset further by the presence of a number of bystanders. Immediately on passing from 30 to 50 c. c. into the vein, she complained of severe headache, nausea, and much pain in her back, and became very restless. After passing some 75 c. c. into the vein the flow was stopped. A wait of ten minutes reduced the patient's complaints, but she was very restless and somewhat nauseated, and anxious to get the whole thing over. Attributing her symptoms to her nervous condition, the remainder of the 500 c. c. was slowly allowed to run in, and the patient sent back to her bed with increased respiration, rapid pulse, and restlessness.

I saw her several hours later, her general appearance being poor, her respiration very rapid, and her pulse thready and rapid. After some eight hours from the time of the transfusion, she became comatose and died sixteen hours after. She passed no urine and was not catheterized to determine the presence of hemoglobinuria. No autopsy was permitted.

I think there can be no question that the patient died of destructive changes brought about by the transfusion of incompatible blood, in spite of favorable preliminary tests as to the compatibility of the patients' and donor's blood. It is most important that one should recognize evidences of

incompatibility even where the preliminary tests have been reported favorable. Pemberton, of the Mayo clinic has recently reported 12 cases of hemolysis with 3 deaths. He does not definitely state that these cases were all subjected to preliminary tests as to compatibility, but the context gives one to assume that they were. The three deaths were in patients in whom the clinical symptoms of hemolysis were not recognized at the time of transfusion, and 500 c. c. of blood were injected in each case. One of the patients died an hour later, a second one two hours later, and the third became comatose shortly after the transfusion and died 30 hours later. In the other 9 instances which occurred, the clinical symptoms were recognized early and interpreted, and no larger quantity of blood than 50 c. c. to 100 c. c. was injected. Adrenalin and atropin seemed to have good effect in these cases.

Our present knowledge of the risk of blood transfusion would seem to be as follows: Preliminary blood tests will eliminate much of the danger, but there is a positive danger which cannot be ignored that the bloods may still be incompatible. The percentage of these latter cases cannot at present be estimated, as such cases are not being adequately reported.

The operator should always be on his guard especially during the transfusion of the first 50 to 100 c. c. of blood, lest symptoms of incompatibility develop. These will be recognized by complaint of shooting pains throughout the body, pain and fullness in the head, precordial distress, labored respiration, nausea, and finally by severe pain in the back. Under such conditions, the transfusion must be terminated, as there is grave danger of death if over 100 c. c. of blood be injected. Another donor should be obtained if the transfusion is imperative.

Hemolysis in varying degrees is probably responsible for most of the minor forms of reaction following transfusion of blood, by whatever method performed, and these cannot be foreseen by laboratory tests. And at times, also, gross and fatal forms of incompatibility occur in spite of apparently correctly performed preliminary tests, reported to be favorable.

Report of Case of Intestinal Obstruction Due to Gall Stones.

This case is presented because intestinal obstruction due to gall stones is not common, and because one or two points in the technic of its relief are worthy of consideration.

It has been stated that up to 1910 there were but 250 recorded cases of intestinal obstruction due to this cause. Although it is the simplest form of obstruction which the surgeon may meet, the mortality is over 50% in operative cases, due of course to delay in bringing the case to operation. The reason that obstruction is not more common from this cause is that the large gall stones often pass through the bowels without causing serious or prolonged obstruction. I have seen two huge gall stones passed by anus which were far larger than the specimens I present in this case. The stone or stones make their way by ulceration from the gall bladder through into the duodenum. The small intestine narrows gradually from its widest portion at the duodenum to its narrowest portion at the ileo-caecal valve. A stone which easily passes along the jejunum may be arrested in the ileum, forming a complete obturator. It is always a matter of interesting speculation as to how long a gall stone may have been in transit in the bowel before giving rise to obstruction. I am inclined to think that symptoms arise within a few days after liberation of the stone into the bowel. It is possible that a stone might remain in the intestine for many days, giving no symptoms. Often cases give no previous history of gall stones.

The present case is that of a lady of 75 years, who had no clear history of gall stones. Two years before she had been confined to bed for a good many days "with stomach trouble and dryness of the mouth." Though of constipated habit, she had always responded well to laxatives except for the past few months, when her bowels became very obstinate. Although a patient in good circumstances, she had allowed herself to go half a dozen days at a time without a bowel movement. She had been losing weight.

Four days before admission to the hospital she had eaten very heartily, and two days before admission had developed paroxysmal pain in the abdomen with vomiting. Nothing had been retained after that, and only mucus and gas had passed with enemas. The vomitus was green at the start, and

had become brownish with bad odor on the morning of admission. When first seen by me her abdomen was soft and moderately distended. There was some tenderness in left side of the abdomen, more marked in the left lower quadrant. No tumor was palpated. Rectal and vaginal examinations were negative. An enema brought away gas and some mucus, with relief. It was decided to await the results of further enemas to see if patient might not be further relieved. No marked improvement occurring, operation was done with ether anesthesia the following day. A median incision was made, long enough to permit the entrance of the hand. A short exploration revealed a hard mass in a coil of small intestine, lying well back in the abdomen. This was delivered and recognized to be a large gall stone. The bowel was contracted about the stone, causing it to effectually plug the lumen. A longitudinal incision $1\frac{1}{2}$ inches long was made on the convex border of the bowel, the stone removed, and the incision closed with two layers of continuous suture. Although there was ample bowel wall to permit of this method of suturing, the wall appeared to contract down to a smaller calibre than was expected. It was also noted that a very smooth facet on one end of the stone removed indicated the possibility of another good-sized stone being present. A search was made for a second stone, and it was noted that a stone the size of a hazel-nut was palpable in the gall-bladder region, but her condition did not warrant prolonged search.

For 24 to 48 hours there was improvement in the patient's condition, but on the third day vomiting again occurred. I feared that my suture had constricted the bowel too greatly, and that a second stone had come down and plugged itself against the narrowed portion of the bowel. The abdominal incision was re-opened under light ether anesthesia, and examination of the previously sutured area showed no obstruction there. Further search revealed the second stone, some feet above the point where the first one had been removed, but not wholly plugging the bowel. The condition on the whole seemed to be one of paresis of the bowel in an elderly patient. I quickly removed the stone by incision, and slipped into the bowel a large rubber T-tube, which drained the bowel freely, suturing the bowel with catgut about the tube. I could not determine the exact point where the first stone had lodged, but it was probably in some part of the ileum.

The first stone removed measured $1\frac{1}{8}$ inch in diameter, and $1\frac{5}{8}$ inch long. The second stone was of equal diameter and one inch long. This seems to be about the average size of stones removed at operation for obstruction.

The point that I would emphasize is that the type of large stone which ulcerates into the duodenum is frequently found in pairs of equal diameter, or even in threes, the lowermost stone being the longer. It would be wise when the stone causing the obstruction is found to be faceted, to make systematic search for the second stone if the patient's condition permit. Or in case no second stone is found, to adopt a method of closure by suture in the transverse direction rather than longitudinally as is usually done, to give a second stone a possible chance to pass.

One reason for the high mortality in these cases may be the fact that the obstruction is often only partial at first, and encouraging delay. As the stone works longer into the bowel, not only is the lumen narrower, but there is a tendency for the irritated bowel wall to contract about the stone, producing the complete plugging, and necessity for imperative operation. The patient's condition by this time has been reduced to a point where the chance of recovery is much less than it would have been at the start.

Report of Death Following Blood Transfusion.

Richard W. Westbrook, M. D.

DR. MATHIAS FIGUERIA:

"I was down to discuss a paper on intestinal obstruction, and yet I would like to say a few words in regard to the case of transfusion.

"In a case of emergency transfusion may be done without any examination of the blood or any scientific preparation, just to save life. Of course, I agree, and I know, that the proper examination of the blood is the proper step to take in cases of transfusion. In the case which Dr. Westbrook reported it seems that all the proper precautions and examinations were done by able men, and yet the patient died; and it makes me think that may be

it was not a case of hemolysis after all. It was a chronic case. It was a case of fibroids of the uterus, and these cases of fibroids of the uterus are cases of chronic anemia. These patients bleed, sometimes for months, sometimes for years, and they gradually bleed, and they gradually get weaker, and poorer, and gradually get paler, and their organs degenerate; parenchymatous changes take place in the kidneys, in the liver, take place in the heart, in the blood-vessels, and when the strain of a transfusion is put upon some of these organs, they may give way and the patient may not die from hemolysis, but from congestion of the lungs, from failure of the heart, or from changes in the liver; it is possible that an autopsy in this case would have demonstrated something different from hemolysis. This, however, is only an idea."

DR. GEORGE I. MILLER:

"In my experience in the past few years I have transfused 202 cases and have had no deaths from the operation of transfusion. Cases which die, die through careless blood tests on the part of the pathologist, who, at times, takes a chance and after testing a number of donors he believes that one of them might be good, because on the one side it did not cause agglutination and on the other side it did. I want to explain what I mean by that. When they take one drop of the donor's blood with nine drops of the patient's blood and it does not coagulate, or does not clot, then they say, 'We might take a chance'; but I consider it safer and more beneficial to the patients if you take nine drops of the donor's blood and one drop of the patient's blood and it clots, even then not to take that chance. In other words, if the serum of the patient clots the corpuscles of the donor, then the donor cannot be used. If the serum of the donor clots the corpuscles of the patient, the chance may be taken. I have always told my pathologist that no matter on which side there is a tendency to clotting, whether it is nine to one on the patient's side or one to nine on the donor's side, he had better rule that particular donor out, and I have had as many as twenty donors for one patient and didn't do the transfusion.

"Hemolysis takes place because the patient's disease prevents proper fusion of the blood with the donor's blood. In a healthy condition this patient would have been as easily matched up as any other normal human being. We have four kinds of blood in our systems and these four kinds of blood must find themselves in disease, as well as during health, and when we get any particular patient we cannot be properly and safely matched up with a donor, that donor should not be used. I know of cases which have died due to hemolysis and symptoms will arise in patients during the beginning of a transfusion when there has been a contraindication in that particular patient for transfusion. For instance, a patient will come to the operating table with a high blood pressure of 200. You begin to pour in a quantity of fresh blood, with the result that the patient will soon develop a headache, he will soon get precordial distress, the heart will over-distend, there will be an increase in the pulse rate, there will be nausea and vomiting, there will be a tendency to cough, and there will be pain over the chest, front and back, as though the whole body has blown up. As soon as I find a patient beginning to have nausea and vomiting, or even begins to yawn, I stop the transfusion to find out the cause of the trouble. At times it is only due to shock.

"I had one case at St. Catherine's Hospital where I used a white person as a donor for a negress prior to her being operated upon for a large fibroid of the uterus. After she had been given about 100 c. c. she turned her head and, noticing the white man, she screamed out aloud and fainted. Everybody around me thought I had better stop the transfusion for fear that she would die. She was absolutely in a deep faint. I continued to transfuse her, however, and when I was up to 500 she woke up, so the transfusion did not kill her. I was absolutely certain with my hemolysis because she had been carefully tested. No transfusion should be done with any donor unless a Wasserman has been done.

"Now, if three cases have been reported and published and died out of a series of a thousand, then I have not reached my third of a thousand to get the first case out of 202 cases. They have not died from the operation. My last transfusion was done two hours ago and I gave 500 c. c., and I have had infants three days old and have had men seventy-three years old. I have had no mishaps, and if there is to be a mishap, there must have been an underlying cause, and I believe it is due to hemolysis and to no other cause."

DR. HERMAN F. McCHESNEY:

"I can report two cases of hemolysis. The one case seemed to have matched perfectly as far as the laboratory man was concerned, but, clinically, it did not. We began to get some symptoms of pain through the back with the first 20 c. c. of blood; a second 20 c. c. was given which increased the pain; and a third 20 c. c. seemed to increase it still more. The transfusion was terminated then by the Miller method. This case went on and cleared up rapidly and there was no particular harm from it. The other case began to show signs of a real hemolysis and anaphylaxis with the first 20 c. c. That case also got 60 c. c. of blood before the transfusion was terminated. With the 60 c. c. of blood there was a marked reaction with a general puffing of the whole body, particularly the face and about the eyes, which closed completely. First she was very pale. Then the whole surface of the body became extremely red, almost like a red ink that, in due time, darkened in color, and she finally assumed a color of deep blue. There was complete suppression of urine for 48 hours and at the end of that time we obtained one ounce of urine which looked like ink. Intestinal symptoms were extremely marked; within the first 24 hours there were 20 bowel movements, rather large, voluminous and very ill-smelling. The case eventually cleared up, but died some three weeks later or pernicious anemia. In this particular case it brings up the point of matching. We matched several donors. Two donors who matched the recipient were kept in reserve. One was used twice and at the expiration of a week following the last transfusion, the second donor, who had originally matched her, was used without matching against the former donor. This gave a hemolysis with anaphylaxis. Then I went back to the laboratory and tested donor 1 against donor 2 and they hemolyzed and that was the explanation in that particular case. Both of these cases survived their hemolysis and both had had 60 c. c. of blood, but I am very sure that if the later case had had more than 60 c. c. she would have died from it. It was a question of circulatory conditions largely. The pulse became extremely rapid and weak; the patient became nauseated and vomited and complained of blindness. She was prostrated and had an extreme toxic condition.

Intestinal Obstruction Due to Gall-Stone (Specimen).

Richard W. Westbrook, M. D.

DR. MATHIAS FIGUEIRA:

"In regard to gall stones, I believe that gall stones are surgical diseases from the word 'go'—from the beginning and that if they were so considered and treated we would not have the cases that the doctor presented here tonight. Given a case of gall stone colic with marked symptoms which return and gradually get worse, I think that an operation is the best thing to rid the patient of the disease, to cure the patient and prevent this condition that afterwards results from neglect. I know that cases have been reported in which a gall stone has obstructed the bowel without any previous symptoms of liver disease. They are the exception to the rule. I think if gall stones are operated in time, this condition of things does not exist afterwards. I also know that when, from neglect or from other causes, the patient gets in this condition with a large gall stone ulcerating through the bladder into the duodenum or into the colon and it passed down and produces a great deal of trouble and disturbance and the patient is jaundiced for a long time one holds back because he is afraid of the results which may follow. I think in that case they have had jaundice and a great deal of gastric disturbance and pain under the liver, with a great many symptoms referable to the hepatic functions, when these conditions increase and there is pain, nausea, vomiting and constipation, or anything at all which suggests intestinal obstruction, I think the sooner they are operated, if possible, the better for them and the more chance of success there is."

DR. JOHN M. SCANNELL:

"I would go one step further than Dr. Figueira and say that I think cholecystitis, from the outset, is a surgical condition, and if the gall-bladder were removed, we would never see any gall stones at all. I was wondering whether in the case of that large stone that Dr. Westbrook showed, he had the patient x-rayed. It seems to me that a stone as large as that might have shown a shadow."

DR. EARL H. MAYNE:

"I reported a case of intestinal obstruction from large gall stones before this society several years ago, in the case of a woman 63 years of age, who had had stomach symptoms for a good many years. She had lost about 60 pounds in weight. It was thought that she had a malignant disease when she suddenly got rid of her symptoms and felt very greatly improved and in about six months gained something like 50 or 60 pounds. She was visiting her daughter in an outlying district of Brooklyn and while there was taken with very severe pain and I saw her about three days later when she presented the symptoms of advanced intestinal obstruction. I saw her first about 11:00 o'clock at night and she died at 4:00 o'clock the following morning. I was permitted to do an autopsy and found a single gall stone, nearly the size of a hens' egg, about ten feet from the ileocecal valve, completely obstructing the intestine. There was a marked advance in the gangrenous condition. Of course, operation at that time would not have done any good."

DR. JOSEPH P. MURPHY:

"Partial intestinal obstruction is not a very uncommon surgical condition. The difficulty is to determine whether or not a surgical condition such as would demand operative interference is present or not. If the doctor could elucidate or make clear to us the line of demarcation—when to cease treating medically and become active in a surgical way, it would produce a lot of information. Will you produce the information, doctor?"

**Report of Death Following Blood Transfusion.
Intestinal Obstruction Due to Gall-Stone. (Specimen.)**

Richard W. Westbrook, M. D.

DR. RICHARD W. WESTBROOK:

"I think our first way of consoling a patient who is suffering from intestinal obstruction that is not complete is to say that we will try when we get to the hospital (and most of them go to the hospital) and see if we cannot bring about better results by the use of enemas, etc., and then if not, we will operate; and I think occasionally we do delay beyond the safe point because we do get temporary relief with effective enemas.

"I think where one has symptoms of intestinal obstruction, even though partial, unless the relief is very great, that the best way is to operate early and not delay. Delay does not pay, except very rarely; it does not pay in the long run, I am very sure of that.

"Speaking of the question of blood transfusion, I have been very much interested to hear what Dr. Miller had to say, and I would ordinarily have my own suspicion that tests made in vitro were not correct. I went into this particular case very thoroughly with our blood man at the hospital. He has done much of this work and he had plenty of time to observe and report in this case. I think that Dr. Figueria's point of this having been a chronic case with degenerative changes in the internal organs is very suggestive, but the symptoms came on before she had 50 c. c. of blood. In another case I would not go on with the transfusion. The cases reported by Mayo were almost similar. They did not recognize conditions soon enough and they lost three of them and in similar cases where they recognized the symptoms they managed to save the patients, although some of them were very ill.

"This patient, while it was a chronic case and had lost blood over a long period, still her principal blood loss had been in the final six weeks before coming into the hospital, and I can hardly believe that it was anything else than a case of death by hemolysis, and I think Dr. Miller would bear that out.

"In regard to this particular case, the sodium citrate was weighed out by a chemist (not a druggist) of great experience, who is accustomed to very accurate chemical determinations, and I think there is no question but what that very moderate amount of sodium citrate was very accurately weighed.

"I had hoped that this might bring out tonight some other cases of hemolysis or deaths following transfusions. I am inclined to think there will be other cases coming out now that the Mayos have come out so frankly, as they always do, in reporting their cases in the last number of Surgery, Gynecology and Obstetrics.

"I doubt that the citrate had anything to do with death in this particular case."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE *LONG ISLAND MEDICAL JOURNAL*

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1919, No. 9

SEPTEMBER, 1919

3 PAGES

TUBERCULOSIS OF THE LYMPHATIC SYSTEM

TUBERCULOSIS OF THE LYMPHATIC SYSTEM.
By Walter Bradford Metcalf, M.D. New York,
The Macmillan Company, 1919. 216 pp. Plates.
8vo. Cloth, \$2.75.

This book is a carefully written one upon a subject which has not been given the attention by physicians and surgeons which its importance warrants. No case of tuberculosis can exist to give symptoms without involving the lymphatic system either locally or more diffusely. The anatomy of the lymphatic system, so little studied and remembered by the average practitioner, is thoroughly and ably presented, together with their physiological importance in Chapters 1, 2 and 3. Not only the results of the author's extensive experience, but a consideration of all of the literature on the etiology and pathology of tuberculous infection of the lymphatic system, is presented in this work.

The chapter on diagnosis, both clinical and by specific methods is carefully written, and gives a clear idea of these different methods. After giving in a brief way the general methods of treating tuberculosis, the author tells us in detail, his experience with tuberculin in the treatment of these conditions, together with his results. The value of x-ray therapy is given both from the author's point of view and from the experience of others.

The book is a valuable one on the subject, and one which should be studied not only by the physician, but also by the surgeon. The subject is presented in an instructive, readable manner, and both the printing and illustrations are typographically up to the standard of the publishers.

Henry M. Moses.

TROPICAL SURGERY AND DISEASES OF THE FAR EAST.

TROPICAL SURGERY AND DISEASES OF THE FAR EAST. By John R. McDill, M.D., F.A.C.S., Major, Medical Reserve Corps, U.S. Army. St.

Louis, C. V. Mosby Company, 1918. 302 pp. Illustrated. 8vo. Cloth, \$4.50.

This book of 302 pages and 69 illustrations covers the subject in an unusually clear manner and offers great assistance to physicians who practice in tropical or semitropical climates.

The numerous illustrations are of such a character as to add materially to the clarity of the subject.

It covers practically the entire field in a brief but thoroughly comprehensive manner.

In view of the reviewer's Army experience on the Island of Samar, P.I., from 1902 to 1904, I would note particularly the chapters on the colon and the liver which owing to the prevalence and severity of dysentery and complications among the troops would have been of invaluable service to the Army Surgeon of those days.

The credit of the advance in tropical surgery and medicine in the far east must be given to the men who like the author have spent years in painstaking research in the tropics.

The author has clarified a great many points which were formerly puzzling to the profession, and the two chapters just mentioned are alone worth the price of the book.

William C. Griswold.

SEX AND SEX WORSHIP

SEX AND SEX WORSHIP (Phallic Worship). By O. A. Wall, M.D., Ph.G., Ph.M. St. Louis, C. V. Mosby Company, 1919. 607 pp. 372 Illustrations. 8vo. Cloth, \$7.50.

The motto, "To the pure all things are pure," has been paraphrased, "to the puer all things are girls." In the remarkable volume that Dr. Wall has placed before us it is hard to say whether one wonders most at its erudition or its abnormal psychology. It is unfair to utterly condemn any honest effort to add to the

world's learning, just as it is unfair to give unstinted praise to any accomplishment that is not wholly good and so it is a difficult matter to give an absolutely fair estimate of the book under consideration. Dr. Wall has gathered together a body of illustrations around which he has constructed a fabric interpreted in terms of sex. He has been successful in avoiding lewdness, but he also falls short of achieving a scientific construction of his subject, for the book is not the discussion of a psychopathic state so much as it is a discursive treatment of the rôle played by sex and sexual thought upon the development of the race's intellectual, artistic and religious growth. One gathers the impression that the Doctor seeks to find in the shape of buildings and monuments, in the conventional designs of secular and ecclesiastical architecture, in decorative and symbolic art and in the symbols of religious worship an all prevailing evidence of the influence of sex and sex thought. In one place he even finds in the conventional pattern of a wall paper the suggestion of a conscious lewdness, that, were it true, would go far to prove the moral decadence of the race. We believe the opposite and assert that whatever place the ancient symbols which in the dim past were associated with sex worship may have had, they are today preserved because of absolutely unconscious habit; and that the intellectual and moral development of the race is steadily away from these debasing ideals. Whatever practical value this book may contain will be found in the interpretation it affords of ancient teachings for the few who care to apply them to the study of aberrant sexuality. As a book for the immature it is more likely to provoke puerient imagination than to afford wholesome instruction.

Henry G. Webster.

PRACTICAL MEDICINE SERIES, 1919.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Series 1919, Volume I, General Medicine, Edited by Frank Billings, M.S., M.D., Chicago, The Year Book Publishers. 1919. 622 pp. Illustrated. Plates. 12mo. Cloth, \$2.50. (Price of the Series of Eight Volumes, \$10.00.)

This handbook is one of a series of eight issued at intervals of about one month, beginning in May. The entire fields of medicine and surgery are covered and each volume is complete on the subject of which it treats for the year preceding its publication.

While the series as a whole is published primarily for the general practitioners, specialists and those interested in special

subjects or fields of work may buy those volumes separately which appeal to them.

The series is under the general editorial charge of Dr. Charles L. Mix, while this particular issue is edited by Dr. Frank Billings of Chicago.

The text, although condensed and concise, is surprisingly complete and comprehensive, and a feature of special convenience is the placing of the references at the foot of each page instead of at the end of the chapter or volume.

It may be said to be a successful resume of the literature on general medicine for the year 1918.

W. H. Donnelly.

SOLDIER'S HEART AND THE EFFORT SYNDROME.

THE SOLDIER'S HEART AND THE EFFORT SYNDROME. By Thomas Lewis, M.D., F.R.C.P., F.R.S., D.Sc. New York, Paul B. Hoeber, 1919. 144 pp. 8vo. Cloth, \$2.25.

If one were to give an adequate review of this little volume of 144 pages he would present the entire book and let it speak for itself. One is always assured in taking up any work of Dr. Lewis, of finding a sound and commonsense handling of the subject and the present work is no exception.

The subject deals with a symptom complex that was by no means unknown before the great war, but that has been brought out in keen relief as a result of the vast number of physical examinations incident to war. The "Effort Syndrome" is that familiar combination of breathlessness, fatigue, palpitation, precordial pain, giddiness or faintness, easy fatigue or actual exhaustion. These are symptoms which result in health from severe and long continued effort and it is their appearance in varying degree upon trifling or moderate exertion that constitutes the diagnostic value of the combination and it is of these that Dr. Lewis treats. His presentation of the subject is so eminently sane and his point of view so reassuring to the every day practitioner that it is a positive pleasure to read what he has written. The discovery of a large number of similar cases in the examination for our own draft, cases which were in a general way described as neuro-cardiac asthenia is the best proof that it is not in military practice alone that one must watch for these cases. As a matter of fact the recognition of varying degrees of neuro-cardio-vascular inadequacy is being steadily impressed on observant physicians and the time is not far distant when the stress that is at present laid upon the presence of valvular defects and so-called endocrine irregularities will be in a large

measure replaced by a just appreciation of the functional capacity of the circulatory system. The present volume is a splendid addition to the literature upon this subject.

Henry G. Webster.

LABORATORY DIAGNOSIS.

MANUAL OF LABORATORY DIAGNOSIS. Compiled and elaborated by Herman John Bollinger, S. B., M. D., Assistant in Bacteriology, Johns Hopkins University. Baltimore, Medical Standard Book Co., 1919. 307 pp. Illustrated. 12mo. Cloth, \$3.25.

This differs from the average manual in the manner of presentation of the subject. It is essentially a syllabus of the course in clinical pathology as taught at Johns Hopkins. It is compiled from notes by lecturers and students. It presents nothing new in the way of technic but we think the numerous tables and classifications are distinctly valuable in that considerable information in condensed form is available at a glance. The subjects covered, urine analysis, sputum, gastric, fecal and blood examinations have been brought up to date and we rejoice in the direct, brief yet adequate presentation.

E. B. Smith.

DIETETICS FOR NURSES.

DIETETICS FOR NURSES. By Fairfax T. Proudfoot. New York, The Macmillan Company, 1918. 444 pp. 8vo. Cloth, \$2.25.

This seems to be one of the best of the numerous works on the subject of dietetics which have appeared in the last year.

While primarily intended for nurses there are few physicians who would not derive great benefit from its perusal.

It is divided into three main sections namely: 1. Food and its significance. 2. The human machine and its relation to food. 3. Nutrition in disease.

The preparation and tasteful arrangement of the various foodstuffs are gone into in detail, while the chemical composition and caloric value are clearly set forth.

Infant feeding has a chapter devoted to it and the different methods of milk modification are taken up and carefully explained.

The arrangement is pleasing, with a clear and attractive system of headlining and paragraphing.

On the whole the impression retained after reading this work is favorable, and it would seem to deserve a place in the

already somewhat overcrowded literature on the subject of dietetics.

W. H. Donnelly.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 1919, Volume 1, General Medicine, Edited by Frank Billings, M. S., M. D. Chicago, The Year Book Publishers, 1919. 622 pp. Illustrated. Plates. 12mo. Cloth, \$2.50. (Price of the Series of Eight Volumes, \$10.00.)

THE SOLDIER'S HEART AND THE EFFORT SYNDROME. By Thomas Lewis, M. D., F.R.C.P., F. R. S., D. Sc. New York, Paul B. Hoeber, 1919. 144 pp. 8vo. Cloth, \$2.25.

HANDBOOK OF MENTAL EXAMINATION METHODS. By Shepherd Ivory Franz, Ph. D., M. D., LL. D. Second Edition, Revised and Enlarged. New York, The Macmillan Company, 1919. 193 pp. Illustrated. 8vo. Cloth, \$2.00.

MANUAL OF LABORATORY DIAGNOSIS. Compiled and Elaborated by Herman John Bollinger, S. B., M. D. Baltimore, Medical Standard Book Co., 1919. 307 pp. Illustrated. 12mo. Cloth, \$3.25.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M. D. and John Rubrah, M. D. Fifth Edition, reset. Phila. & London, W. B. Saunders Company, 1919. 919 pp. 8vo. Cloth, \$6.00.

AN OUTLINE OF GENITO-URINARY SURGERY. By George Gilbert Smith, M. D., F.A.C.S. Phila. & London. W. B. Saunders Company, 1919. 301 pp. Illustrated. Plates. 12mo. Cloth, \$2.75.

RECONSTRUCTION THERAPY. By William Rush Duntun, Jr., M. D. Phila. & London, W. B. Saunders Company, 1919. 236 pp. Illustrated. 12mo. Cloth, \$1.50.

BACTERIOLOGY AND MYCOLOGY OF FOODS. By Fred Wilbur Tanner, M. S., Ph. D. New York, John Wiley & Sons, Inc., 1919. 592 pp. Illustrated. Plates. 8vo. Cloth, \$6.00.

THE BLIND: THEIR CONDITION AND THE WORK BEING DONE FOR THEM IN THE UNITED STATES. By Harry Best, Ph. D. New York, The Macmillan Company, 1919. 763 pp. 12mo. Cloth, \$4.00.

GYNOPLASTIC TECHNOLOGY, with a Chapter on "Sacral Anesthesia." By Arnold Sturmordf, M. D. Philadelphia, F. A. Davis Company, 1919. 334 pp. Illustrated. Plates. 8vo. Cloth, \$5.00.

A MANUAL OF EXERCISES FOR THE CORRECTION OF SPEECH DISORDERS. By May Kirk Scripture, B. A., and Eugene Jackson, B. A. Philadelphia, F. A. Davis Company, 1919. 236 pp. Illustrated. 12mo. Cloth, \$2.00.

THE HEALTH OFFICER. By Frank Overton, A. M., M. D., D. P. H. and Willard J. Denno, A. B., M. D., D. P. H. Philadelphia and London, W. B. Saunders Company, 1919. 512 pp. Illustrated. 8vo. Cloth, \$4.50.

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 Borland, Harry L.....Lynbrook, L. I., N. Y.
 Bray, Dallas G.,
 451 Grand Avenue, Astoria, L. I., N. Y.
 Breed, Nathaniel Perkins
 Douglas Manor, Douglaston
 Brennan, Francis E.,
 256 Barclay Street, Flushing, L. I., N. Y.
 Brush, Samuel Pierson
 74 Union Avenue, Jamaica, L. I., N. Y.
 Burnett, William J.
 3 Queensboro Plaza, Long Island City, L. I.,
 N. Y.
 Burns, Geoffrey Charles Henry
 Central Islip, L. I., N. Y.
 Burns, James E.....Glen Cove, L. I., N. Y.
 Buxbaum, Edward J.,
 317 Hillside Avenue Jamaica, L. I., N. Y.
 C
 Campbell, Charles A.....98 Norman Avenue
 Campbell, Walter J.....384 Union Street
 Campbell, William Francis..394 Clinton Ave.
 Campesi, Vincent J.....46 Stagg Street
 Candidus, Eugene William, 770 St. Marks Ave.
 Cardona, Lawrence John, 804 Lafayette Ave.
 Carey, John J.....287 Hoyt Street
 Carmel, Benjamin E.....46 Boerum Street
 Cary, William Hollenback..168 Clinton Street
 Catlin, Arnold Wells.....207 Greene Avenue
 Cauble, William C.....1664 East 14th Street
 Chapin, Edward.....21 Schermerhorn Street
 Chapman, William Lewis...114 Lafayette Ave.
 Chase, Walter B.....986 Park Place
 Child, Augustus Louis....424 Putnam Avenue
 Clark, Frank H.....758 Putnam Avenue
 Clark, Tracy E.....85 Halsey Street
 Clarke, Albert Lincoln....100 Nassau Avenue
 Cobb, James L.....616 Nostrand Avenue
 Cochran, Frank Lawrence....954 Park Place
 Cohen, Louis Lippman, 760 Bushwick Avenue
 Colgan, John J.....191 Nassau Street
 Collins, Burnett C.....645 St. Marks Avenue
 Collins, John J.....1349 Dean Street
 Colson, John D.....919 Bedford Avenue
 Comstock, Albert.....421 East 21st Street
 Connor, Maurice E.....1320 Carroll Street
 Cooley, James Allen.....552 Pacific Street
 Cornwall, Edward E.....1218 Pacific Street
 Cosgrove, James Edward....1269 58th Street
 Coughlin, Robert Emmet....428 47th St.
 Cox, Charles N.....257 Jefferson Avenue
 Crane, Claude Granville...121 St. James Place
 Cross, Frank Bethel.....832 President Street
 Capron, Arthur J.,
 Glenmary Sanatorium, Owego, N. Y.
 Carman, Edwin.....Freeport, L. I., N. Y.
 Carter, G. Herbert.....Huntington, L. I., N. Y.
 Casselberry, John Logan,
 1213 Hatch Ave., Richmond Hill, L. I., N. Y.
 Chalmers, Thomas Clark.....Forest Hills
 Chamberlin, W. Taylor
 125 Washington St., Hempstead, L. I., N. Y.
 Child, Frank S.....Port Jefferson, L. I., N. Y.
 Clark, Charles Edward..Hewletts, L. I., N. Y.
 Clarke, Louis Vincent,
 69 Mott Ave., Far Rockaway, L. I., N. Y.
 Cocke, William Irby
 Port Washington, L. I., N. Y.
 Cole, Chester W.....Oyster Bay, L. I., N. Y.
 Combes, Abbott C.,
 20 Elmhurst Avenue, Elmhurst, L. I., N. Y.
 Combes, Abbott Carson, Jr.,
 154 25th Street, Elmhurst, L. I., N. Y.
 Cook, William H.,
 2402 Silver Street, Ridgewood, L. I., N. Y.
 Cooke, Tyler Gibson,
 827 Stotthoff Ave., Richmond Hill, L. I., N. Y.
 Cooley, James Seth.....Mineola, L. I., N. Y.
 Corcoran, David.....Central Islip, L. I., N. Y.
 Corwith, Silas R.....Bellport, L. I., N. Y.
 Courten, Henry C.,
 923 Church St., Richmond Hill, L. I., N. Y.
 Cox, Lester L.....Locust Valley, L. I., N. Y.
 Crawford, James J.,
 311 Gamma Place, Glendale, L. I., N. Y.
 D'Albora.....83 Clermont Avenue
 Dalton, Eugene Smith....353 East 17th Street
 Dangler, Henry William...455 Classon Avenue
 Dattlebaum, Maurice J.....345 Stone Avenue
 Davis, William Henry
 Millerton, Dutchess Co., N. Y.
 Deely, George Edward....132 Montague Street
 De Forest, Henry Pelouze
 59 West 54th Street, New York, N. Y.
 Delatour, H. Beekman.....73 Eighth Avenue
 De Long, William A....170 Bainbridge Street
 De Lorme, Murrett F.....61 Greene Avenue
 De Nyse, Percy Lott.....681 Hancock Street
 De Waltoff, Dayve....451 Fort-seventh Street
 Dexter, Thurston Hopkins..411 Hancock Street
 De Yoanna, Gaetano.....111 Pierrepont Street
 Dickert, John G.....928 Bushwick Avenue
 Dickinson, Robert L.....168 Clinton Street
 Dixon, Herbert S.....141 Lewis Avenue
 Dobkin, Nicholas.....182 Vernon Avenue
 Dorney, Edward R.....309 Eleventh Street
 Dougherty, John E.,
 Greenpoint Hospital, Brooklyn, N. Y.
 Dowd, James B.,
 Fort Hamilton Parkway and 42nd Street
 Downey, James Maurice....381 Clinton Street
 Doyle, Francis J.....151 Hull Street
 Doyle, George J.....287 Clermont Avenue
 Driscoll, Joseph Alexander..97 Park Avenue
 Du Cret, Herbert Sperry..169 New York Ave.
 Duffield, Warren L.....119 Berkeley Place
 Duggan, Homer V.....955 St. Johns Place
 Duncan, Cameron.....462 Ocean Avenue
 Durham, Roger.....322 Park Place
 Durkee, John W.....142 Clinton Street
 Durkin, William J.....2353 Forest Avenue
 Durning, Charles Francis..2101 Voorhees Ave.
 Durrin, William C.....1215 Dean Street
 Dusseldorf, Louis M.....392 Union Street
 Davis, Milton B.....Patchogue, L. I., N. Y.
 De Graffenried, Anthony Foster,
 Bell Ave., Bay Side, L. I.
 De Lano, Frank T.,
 Rockville Center, L. I., N. Y.
 Dick, John F.,
 227 Sanford Ave., Flushing, L. I., N. Y.
 Dickson, David Judkins, Woodmere, L. I., N. Y.
 Dietrich, Albert E.....Bay Shore, L. I., N. Y.
 Dold, William Elliott
 River Crest, Astoria, L. I., N. Y.
 Dorman, Franklin Abbott..Orient, L. I., N. Y.

Dow, Horace D.....Maspeth, L. I., N. Y.
 Dowsey, George H....Great Neck, L. I., N. Y.
 Duggan, Edward F...Valley Stream, L. I., N. Y.
 Durand A. Walter
 95 William Street, L. I., N. Y.
 Durgin, Delmer Dennis
 Central Islip, L. I., N. Y.

E

Eastman, Frederic C....1268 Bergen Street
 Eastmond, Charles.....92 Gates Avenue
 Ehrhardt, Charles F.....146 Maple Street
 Eichacker, Henry Charles..2355 Putnam Ave.
 Eichacker, Henry Frederick..716 Seneca Ave.
 Elliott, Frederick Estabrook...232 77th Street
 Emery, Z. Taylor...66 Broadway, New York
 Enger, Anton.....4 First Place
 Ennis, William Murray.....31 First Place
 Enright, Maurice.....903 Greene Avenue
 Erdmann, Adolph F.....458 Ninth Street
 Estabrook, C. R.....9320 Flatlands Avenue
 Edwards David.....Easthampton, L. I., N. Y.
 Elliott, Robert M.,
 Willard State Hospital, Willard, N. Y.
 Ellis, Hubert
 Lyon Avenue and McIntosh Street, East
 Elmhurst, L. I., N. Y.

F

Fairbairn, Henry Arnold, 249 McDonough St.
 Fawcett-Shaw, William 320 New York Avenue
 Fett, Herbert C.....113 Lincoln Place
 Fettes, Davis Stewart.....1402 Avenue P.
 Fielding, George Bennett....350 Ninth Street
 Figueira, Mathias.....14 Stuyvesant Avenue
 Finch, William Young..124 St. Marks Avenue
 Fisher, Charles Mackall..317 Ovington Avenue
 Fisher, George Garthwaite 990 St. Johns Place
 Fisher, Louis.....132 Pennsylvania Avenue
 Fisher, S. Lloyd.....2911 Clarendon Road
 Fiske, Edwin Howe....152 Lafayette Avenue
 Fiske, E. Rodney.....1172 Dean Street
 Fitzsimmons, James Cleland..451 Gold Street
 Flannery, William J....238 Arlington Avenue
 Fleming, James W.....471 Bedford Avenue
 Flyer, Irving.....5401 Fourteenth Avenue
 Fogarty, Thomas Louis..9 Prospect Park West
 Fowler, Royale Hamilton..280 Jefferson Ave.
 Fowler, Russell Story....301 De Kalb Avenue
 Fox, James W.....418 54th Street
 Franciscus, Henry.....718 Bushwick Avenue
 Freeman, William Hazen..263 Arlington Ave.
 Frei, Emil.....24 Linden Street
 French, Thomas Rushmore..150 Joralemon St.
 Frischbier, Otto.....690 Bushwick Avenue
 Fuhs, Jacob.....871 Park Place
 Funk, Merton Layton.....1626 Foster Avenue
 Fallor, George W.....Oyster Bay, L. I., N. Y.
 Fensterer, Gustav A...Floral Park, L. I., N. Y.
 Finch, Frederick Arlington (Emeritus)
 Stony Brook, L. I., N. Y.

Fincke, Harry Stark

655 Academy Street, Astoria, L. I., N. Y.
 Fisher, Henry Archbold
 25 Bergen Ave., Jamaica, L. I., N. Y.
 Flemming, Edward A.
 213 113th St., Richmond Hill, L. I., N. Y.
 Fletcher, Frederick W...Frecport, L. I., N. Y.
 Flynn, Timothy J.,
 19 Harden Brook Ave, Jamaica, L. I., N. Y.
 Forbes, Joseph Henry
 Washington Terrace, Howard Beach, L. I., N. Y.
 Forster, John A.,...Farmingdale, L. I., N. Y.
 Foster, J. Mansfield, Valley Stream, L. I., N. Y.

Foster, W. E.....Babylon, L. I., N. Y.
 Freitag, John Daniel, Jr.
 9 105th St., Richmond Hill, L. I., N. Y.
 Frey, Walter G.,
 205 Grand Ave., Astoria, L. I., N. Y.

G

Galloway, F. Maxwell.....156 Windsor Place
 Gardiner, Charles Edward
 59 Schermerhorn Street
 Garlick, Ralph H.....476 73d Street
 Geis, Norman Philip.....1325 Pacific Street
 Genthner, Philip J.....384 Court Street
 Gibson, Edward Tinkham...57 Halsey Street
 Gibson, Gordon.....176 State Street
 Gildersleeve, Donald Maurice..614 Second St.
 Gildersleeve, John Andrew..7325 14th Avenue
 Gilligan, Alexander.....404 Franklin Avenue
 Gilmartin, Albert Edward..570 Leonard Street
 Giovinco, Calogero.....175 Central Avenue
 Gissel, Henry William.....453 Third Street
 Gissler, Edwin Fred.....32 Cedar Street
 Given, James B.....463 Ninth Street
 Glynn, James P.....474 Ninth Street
 Glynn, John G.....1634 East 14th Street
 Golding, Joseph Edward....111 Halsey Street
 Goodfellow, Eugene H.....5708 14th Avenue
 Goodrich, Charles H.....280 Park Place
 Gordon, Charles Albert...847 Putnam Avenue
 Gordon, Mark.....1076 Eastern Parkway
 Gordon, Murray Burns...4402 Twelfth Avenue
 Gordon, Onslow Allen.....71 Halsey Street
 Gordon, Onslow Allen, Jr.,..71 Halsey Street
 Goubeaud, Henry J.....518 Carlton Avenue
 Graham, Henry Flack.....474 First Street
 Graham, John Cooper....319 Seventy-third St.
 Grant, Water Scott....378 McDonough Street
 Gray, R. C.....24 Clarkson Avenue
 Gray, Robert Howe.....768 Halsey Street
 Greeley, Horace.....140 Clinton Street
 Green, Edward Everett..456 Washington Ave.
 Green, Samuel William....161 Clinton Street
 Griffin, Edwin Albert....165 Hancock Street
 Griffin, John.....45 Lefferts Place
 Griswold, William Church..78 Prospect Park
 West
 Garvin, William C....Kings Park, L. I., N. Y.
 Geis, Joseph A.
 2342 Summerfield St., Glendale, L. I., N. Y.
 Gibbons, Rupert Vincent
 Oyster Bay, L. I., N. Y.
 Gibson, Horatio Gates, Jr.
 Central Islip, L. I., N. Y.
 Gibson, William B....Huntington, L. I., N. Y.
 Goldberg, Abraham
 624 Boulevard, Rockaway Beach, L. I., N. Y.
 Goodwin, Norman Charles
 3308 Ridgewood Ave., Richmond Hill, L. I.,
 Grimmer, Roy Duell..Hempstead, L. I., N. Y.

H

Hagan, Cornelius Edward, 461 Ridgewood Ave.
 Hall, Gordon R.....164 Clinton Street
 Hall, Robert Wellington...750 East 18th St.
 Hamilton, John Cowle.....1973 62d St.
 Hamlin, Cyrus.....102 Hancock Street
 Hamlin, George D.....1259 Pacific Street
 Hancock, James Cole....135 Cambridge Place
 Hangarter, Andrew Henry...168 Staggs Street
 Hanson, Anthony Hans.....1830 84th Street
 Hargitt, Charles A.....17 Schermerhorn St.
 Harman, Eugene Paul...563 St. Marks Avenue
 Harnden, Frank.....162 Eighth Avenue

Harrington, Burt D.....525 Ocean Avenue
 Harris, Burton.....475 Greene Avenue
 Harris, Isham G.,

Brooklyn State Hospital, Brooklyn, N. Y.
 Hartung, Emil F.....358 Marion Street
 Hatfield, Richard Henry....1489 Union Street
 Haupt, William Carl.....979 Lorimer Street
 Heeve, William Lewis.....138 Hancock Street
 Helprin, Benjamin Edel.1501 Eastern Parkway
 Henry, Morris Walgrove...2589 Bedford Ave.
 Herbert, William.....778 Putnam Avenue
 Hermann, Solomon.....4903 Fourteenth Ave.
 Herriman, Frank Richard...169 Quincy Street
 Herriman, Rudolph F.....1075 Bushwick Ave.
 Heuser, Gerard William...1050 Hancock St.
 Heymann, Isaac Pickard....142 Henry Street
 Hicks, Edward E.....1168 Dean Street
 Higgins, Thomas Vincent...982 Bedford Ave.
 Hill, Roy A.,

Greenpoint Hospital, Brooklyn, N. Y.
 Hills, Rollin.....216 77th Street
 Holden, Frederick C.....198 Lincoln Place
 Hopper, Magnus Tate....379 Washington Ave.
 Horni, John.....272 Jefferson Avenue
 Howard, Tasker.....26 Sidney Place
 Howe, Alexander C.....40 South Oxford St.
 Hoxie, Edward Hazard.....1 Hart Street
 Hubbard, William Stimpson..1138 Bergen St.
 Huffman, Otto V.....352 Henry Street
 Hull, Thomas H.....87 Lee Avenue
 Hulse, Clarence H.....83 Norman avenue
 Hulst, Francis A.....1249 Dean Street
 Humpstone, O. Paul....327 Washington Ave.
 Hunter, G. H. V.....67 Hanson Place
 Hyde, Clarence Reginal....242 Henry Street
 Hynes, Edward G.....80 Ocean Boulevard
 Hadley, William Wallace...Sea Cliff, L. I., N. Y.
 Hala, William Wendell, 660 Academy Street,
 Long Island City, L. I., N. Y.

Hall, Ralph William, Stony Brook, L. I., N. Y.
 Hallinan, Joseph Daniel, 29 Lefferts Avenue,
 Richmond Hill, L. I., N. Y.

Halsey, Hugh.....Southampton, L. I., N. Y.
 Halsey, James L.....Islip, L. I., N. Y.
 Hamill, John D., 30 West 11th Street, New
 York, N. Y.

Harrison, Daniel A., Whitestone, L. I., N. Y.
 Hatfield, Frank P., 55 Washington Avenue,
 Rockaway Park, N. Y.

Hatton, Henry C., Wicks Street, Morris Park,
 L. I., N. Y.

Hawkes, Forbes, 124 East 65th Street New
 York, N. Y.

Henderson, Alton Sanford, Huntington, L. I.
 Hewlett, Harold E.....Babylon, L. I., N. Y.
 Heyman, Marcus B., Ward's Island, New York,
 N. Y.

Hicher, George Matthew, 4 Washington Ave.,
 Richmond Hill, L. I., N. Y.

Higgins, Aaron L., Rockville Center, L. I., N. Y.
 Holcomb Henry V.....Bellmore, L. I., N. Y.

Houghton, Harris A.....Bayside, L. I., N. Y.
 Howard, James Gilbert, 17 Bass Avenue, South
 Ozone Park, L. I., N. Y.

Howell, Hampton P., 616 Madison Avenue,
 New York, N. Y.

Hulse, William A.....Bay Shore, L. I., N. Y.
 Humphreys, George H., 46 Jeffrey Avenue,
 Jamaica, L. I., N. Y.

Hutcheson, J. Ensor, Rockville Center, L. I.
 Hyland, Edward J., 186 Shelton Avenue, Ja-
 maica, L. I., N. Y.

I

Iler, George Hills.....169 Hancock Street

Ingalls, James W.....874 Lafayette Avenue
 Iszard, Walter R.....141 St. Marks Avenue
 Ives, Robert F.....962 Ocean Avenue

J

Jacobson, Arthur Clarence..115 Johnson Street
 Jameson, P. Chalmers.....139 Montague St.
 Janson, Christian William..978 Bushwick Ave.
 Jennings, Frank Dormer..1083 Bushwick Ave.
 Jennings, John Edward....282 Jefferson Ave.
 Jewett, Frederick A.....282 Hancock Street
 Jewett William Averill...380 Vanberbilt Ave.
 Johnston, Charles L.....232 Hancock St.
 Johnston, Evan Melrose 61 Richmond Street
 Johnston, Reuben Thomas

615 Eastern Parkway
 Joyce, T. Urquhart.....353 Park Place
 Judd, Albert Martin.....375 Grand Avenue
 Jackman, Luther Taylor, Huntington, L. I., N. Y.
 Jaques Arthur D.....Lynbrook L. I., N. Y.
 Jenner, William Edward
 229 Elm St., Richmond Hill, L. I., N. Y.
 Jessup, William..Cornwell Avenue, Hollis, L.
 I., N. Y.

K

Kahn, Moses.....702a Halsey Street
 Kahn, Oscar J.....344 East Third Street
 Kalvin, Henry M.....919 Avenue J.
 Kandt, Hartwig.....2209 Clarendon Road
 Kasper, Gerard.....376 McDonough St.
 Keenan, Albert J.....251 New York Avenue
 Keil, Peter Augustus....164 Arlington Avenue
 Kene, Joseph A.....64 Greene Avenue
 Kenna, Richard J.....105 Reid Avenue
 Kennedy, James Charles..762 Willoughby Ave.
 Kennedy, Patrick Joseph.....72 Avenue Q.
 Kerr, Le Grand.....462 Clinton Avenue
 Kessler, George L.....588 Bedford Avenue
 Ketcham, George F.....378 Adelphi Street
 Kevin, J. Richard.....252 Gates Avenue
 Keyes, Frank Perkins.....83 Hanson Place
 Keyes, James J.....226 Seventeenth Street
 King, Samuel T.....351 Adelphi Street
 Kinloch, Robert Ernest...222 Hancock Street
 Kinne, William.....48 Fourth Avenue
 Koehler, Charles George, Jr.,

859 Jefferson Avenue
 Konther, Adolph Frederick

184 Ridgewood Avenue

Kane, Julius Theodore,
 9 Smith Street, Jamaica, L. I., N. Y.

Keays, Frederick L.,
 Great Neck, L. I., N. Y.

Keet, Ernest Ellsworth,
 70 Bergen Avenue, Jamaica, L. I., N. Y.

Kelly, Aquin S.,
 294 Broadway, Far Rockaway, L. I., N. Y.

Kerby, Walter Harold,
 526 Woodhaven Avenue, Woodhaven, L. I.,

Kerrigan, Joseph A....Hempstead, L. I., N. Y.

Kittell, Martin M.,
 101 Herriman Avenue, Jamaica, L. I., N. Y.

Krauss, John George,
 95 Grand Street, Elmhurst, L. I., N. Y.

L

Lange, Hugo.....1182 Dean Street
 Langer, Herbert Leonard...102 Linden Ave.
 Langworthy, Howard T....480 Franklin Ave.
 Lasher, Frank Hermance...1127 Dean Street
 Lawrence, Andrew Wilson..599 Bedford Ave.

Laws, Carl H.....61 Pierrepont Street
 Lazarus, George F.....2105 Caton Avenue
 Leahy, Sylvester R.....151 Clinton Street
 Lee, John A.....23 Revere Place
 Le Fevre, Caroline Hurd..647 St. Marks Ave.
 Leiter, Joseph G.....598 McDonough Street
 Lewis, Maurice Thomas....404 Fifty-fifth St.
 Lewis, Silas Arthur.....125 Halsey Street
 Licht, Louis Frederick....65 Forest Avenue
 Lincoln, Harry Warren...113 Hancock Street
 Linder, William.....889 St. Marks Avenue
 Lindridge, Edwin F.....260 De Kalb Avenue
 Lintz, William.....1352 Carroll Street
 Lippold, William Edward, 221 St. Nicholas Ave.
 Little, George F.....460 Clinton Avenue
 Lloyd, Ralph Irving.....450 Ninth Street
 Lloyd, Thomas Mortimer..125 Pierrepont St.
 Lohman, William Henry..472 Washington Ave.
 Long, John Hathaway....1132 Bergen Street
 Longmore, John A.....158 Clinton Street
 Longo, Thomas Joseph..410½ Clinton Street
 Louria, Leon.....249 Hewes Street
 Love, Cornelius R.....167 Clinton Street
 Love, William Lathrop....857 Lincoln Place
 Ludlum, Walter D.....362 Marlborough Road
 Ludwig, Robert Francis...1238 Halsey Street
 Lundbeck, Charles J.....107 Bergen Street
 Lutz, Stephen Henry.....285 Hancock Street
 Lynch, Leo A.....906 Lincoln Place

Lanehart, Louis Nott..Hempstead, L. I., N. Y.
 Leale, Edwin.....Glen Cove, L. I., N. Y.
 Lehman, Max,

161 Halleck Avenue, Glendale, L. I., N. Y.
 Lehmann, Theodore A.,

227 Steinway Avenue, Astoria, L. I., N. Y.
 Lewis, David R.....Whitestone, L. I., N. Y.
 Lindsay, Walter.....Huntington, L. I., N. Y.
 Linnehan, George A.,

171 Shelton Avenue, Jamaica, L. I., N. Y.
 Linson, Kenneth Kenyon, 688 97th St., Wood-
 haven, L. I., N. Y.

Loper, Arthur C.....Greenpoint, L. I., N. Y.
 Louis, William I., 545 North Oxford Avenue,
 Richmond Hill, L. I., N. Y.

Luce, Charles A.....Amityville, L. I., N. Y.
 Ludlum, Charles H....Hempstead, L. I., N. Y.

M

McAveney, William Joseph..134 Second Place
 McCammon, Frederick J...167 Hancock Street
 McChesney, Herman Franklin..1118 Dean St.
 McClelland, Lefferts A....78 McDonough St.
 McEntee, Edward James..196 Hancock Street
 McGoldrick, Edward Vincent..115 Russell St.
 McGourty, Andrew F.,

Peck Memorial Hospital
 McKenna, Donald Esterbrook

1020 East Twelfth Street
 McKenna, William Francis..187 Lafayette Ave.
 McLeod, John A.....160 Noble Street
 McNamara, Sylvester James....369 Union St.
 McQuillin, John Parker...414 Fifty-eighth St.
 MacCarthy, Frederick Henry..410 Clinton St.
 MacCoy, Cecil.....184 Joralemon Street
 MacEvitt, James M.....407 Clinton Street
 MacEvitt, John Cowell....407 Clinton Street
 MacNaughton, Donald Stuart...50 Gates Ave.
 Macumber, John L.....291 De Kalb Avenue
 Maddren, William Harvey....498 Hancock St.
 Maggio, Benjamin Fasullo..691 Bushwick Ave.
 Mahr, George J.....93 Wilson Street
 Malament, Manassen John...1297 Carroll St.
 Malone, Joseph W.....8732 Bay Parkway

Manecke, Philip.....1058 Bushwick Avenue
 Mangan, Daniel Clarence....95 Park Avenue
 Manley, Mark.....261 Monroe Street
 Manning, Charles Edward..480 Putnam Ave.
 Matheson, A. Ross,

St. John's Place and Seventh Avenue
 Matthews, Harvey Burleson

638 St. Marks Avenue
 Mausert, Gustav Adolf.....67 Hancon Place
 Mayes, Harry Welday.....438 Third Street
 Mayne, Earl H.....139 Bay 17th Street
 Meara, James A.....101 South Oxford Street
 Meeks, Frederick R.....100 Hancock Street
 Menasse, Joseph Phineas....592 Henry Street
 Merenna, Giovanni.....1465 59th Street
 Merrill, George Adams....931 Flatbush Ave.
 Meury, John Bertrand.....785 Bushwick Ave.
 Mills, Henry M.....192a Sixth Avenue
 Minton, Henry B.....165 Joralemon Street
 Mock, Johann Wilhelm....328 Central Avenue
 Moitrier, William.....454 Putnam Avenue
 Moitrier, William, Jr.....454 Putnam Avenue
 Monaghan, Frank J.....1069 Bushwick Ave.
 Mooney, Patrick J.....132 Kent Street
 Moore, Joseph Leslie.....175 Sixth Avenue
 Moore, Samuel Edward...1332 Myrtle Avenue
 Moorhead, Robert.....185 Hancock Street
 Morgenthaler, Herbert Jacob William

911 Bedford Avenue
 Morris, Harold Arthur.....350 Ocean Avenue
 Morrison, Robert J.....1173 Dean Street
 Morton, Henry H.....32 Schermerhorn Street
 Morton, Lawrence J.,

Fort Hamilton Parkway and 88th Street
 Mosher, Burr Burton...184 Joralemon Street
 Mueller, Carl.....743 Bushwick Avenue
 Murray, Archibald.....Hoagland Laboratory
 Murray, Foster.....913 Union Street
 Murray, Patrick J.....478 Classon Avenue
 Myerle, David.....1135 Ditmas Avenue
 McCarthy, Timothy F.,

5 Ray Street, Jamaica, L. I., N. Y.
 McCrea, Frederick L.,

Port Jefferson, L. I., N. Y.
 McMahon, Dennis Edward

61 Whitney Ave., Elmhurst, L. I., N. Y.
 MacClymont, De Witt Clinton

Northport, L. I., N. Y.
 MacFarland, Ralph L.,

53 Clinton Avenue, Jamaica, L. I., N. Y.
 MacIvor, James H....Port Jefferson, L. I., N. Y.
 MacLean, Burge P....Huntington, L. I., N. Y.
 Macklin, Walter Fullarton

616 Madison Avenue, New York, N. Y.
 Malcolm, William J.....Jericho, L. I., N. Y.
 Mann, John.....Old Westbury, L. I., N. Y.
 Markham, Convas L....Amityville, L. I., N. Y.
 Marshall, Joseph H.....Southold, L. I., N. Y.
 Marshall, Samuel A.,

387 First Avenue, Long Island City, L. I.
 Martin, Arthur Chalmers

131 Hempstead Ave., Lynbrook, L. I., N. Y.
 Mencken, H. P.,

91 Newton Ave., Astoria, L. I., N. Y.
 Merritt, Frederick C.....Sayville, L. I., N. Y.

Meynen, George Kissam
 43 Clinton Ave., Jamaica, L. I., N. Y.

Meyers, Nathaniel.....Northport, L. I., N. Y.
 Miles, Clarence C.....Greenport, L. I., N. Y.

Moore, Edwin S.....Bay Shore, L. I., N. Y.
 Morrissey, Joseph L.,

63 Lamont Ave., Elmhurst, L. I., N. Y.
 Moss, L. Howard

114th St. and 86th Ave., Richmond Hill

Mulcahy, William L.,
3 Carnaga Ave., Far Rockaway, L. I., N. Y.
Murphy, Charles C.....Amityville, L. I., N. Y.

N

Napier, Charles Dwight...100 Lafayette Ave.
Nash, Philip Ingram
 Neptune Ave. and Cortland Street
Nichols, Carroll Leja.....230 Hancock Street
Nichols, Louis Lee.....386 Stuyvesant Avenue
North, Nelson L.....150 Hancock Street
Northridge, Augustus Pearce..87 Halsey Street
Northridge, William Albert,
 402 Washington Avenue
Neail, Howard W.
 7 Ray Street, Jamaica, L. I., N. Y.

Newman, Leander A.,
 190 Main St., Port Washington, L. I., N. Y.
Niesley, Charles M.....Manhasset, L. I., N. Y.
Nugent, John.....Southampton, L. I., N. Y.
Nugent, John Henry..Southampton, L. I., N. Y.
Nutt, Samuel D.,
 1146 Woodhaven Ave., Woodhaven, L. I.

O

O'Brien, William Henry J.....601 Park Place
O'Connor, Charles George..1497 President St.
Ogden, George Stewart..641 East 28th Street
Oginz, Philip.....490 Stone Avenue
O'Reilly, James Aloysius..217 St. James Place
Otis, F. Burton.....369 Hancock Street
Owens, George C.....275 Kingston Avenue
O'Hanlon, George
 Bellevue Hospital, New York, N. Y.
O'Leary, Cornelius....Patchogue, L. I., N. Y.
Onuf, Brinslow,
 208 Montross Ave., Rutherford, N. J.
Overton, Frank.....Patchogue, L. I., N. Y.

P

Pacini, August J. P.....145 Gates Avenue
Paffard, Frederick C.....238 Clinton Street
Pallister, Stanley Wilson..222 Jefferson Ave.
Palmer, George Hollis.....489 Greene Ave.
Pardee, M. Clifford.....168 Macon Street
Parrish, John W.....111 Montague Street
Parris, Paul L.....1036 Bergen Street
Pascual, William Vincent..690 St. Marks Ave.
Peake, Chester A.....210 Rutland Road
Pearlstein, Maurice Barrett..309 Hewes Street
Pearson, Lewis Walter....401 Union Street
Pendleton, Judson Philbrook..91 Sixth Avenue
Peterman, Charles P.....809a Green Avenue
Peterson, Winfield A.....451 50th Street
Pettit, Henry S.....106 Gates Avenue
Pettit, William Randolph..1208 Ocean Ave.
Pfeiffer, William.....368 McDonough St.
Pierson, Ferrand.....837 Park Place
Pierson, William H.....101 McDonough St.
Pilcher, James Taft.....145 Gates Avenue
Pilcher, Lewis Stephen....145 Gates Avenue
Place, E. Clifford.....59 Livingston Street
Plath, John Henry.....994 Bushwick Avenue
Platt, Foster H.....851 Lincoln Place
Plotkin, Henry.....486 Stone Avenue
Polak, John Osborn.....287 Clinton Avenue
Pomeroy, Ralph H.....511 Nostrand Ave.
Pond, Erasmus Arlington...1087 Dean Street
Poole, William Pohlman...166 Clinton Street
Poole, John W.,
 Voorhees Avenue near East 18th St.

Porter, E. Pender.....1 Glenada Place

Potter, Alfred.....374 Sterling Place
Potter, Mary Emma.....305 Washington Ave.
Price, William H.....801 Prospect Place
Pullman, James.....155 Reid Avenue
Parsons, Alfred H.....Great Neck, L. I., N. Y.
Payne, Albert E.....Riverhead, L. I., N. Y.
Pendill, Willoughby C., Huntington, L. I., N. Y.
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FEEDING OF CHILDREN AFTER THE FIRST YEAR.*

Walter D. Ludlum, M. D.

Brooklyn, New York.

THE above title was set down because of the necessity of brevity in the announcement, as the writer had no intention of giving a systematic presentation of such a subject, a task which would occupy some hours. The real design of the writer might be expressed by some such longer title as: Certain Points in the Feeding of Children in and after the Second Year of Life, in Health and Disease, especially as suggested by errors commonly seen.

The general subject demands considerable subdivision;

A. The Child in Health.

B. The Sick Child, divided into the child sick with digestive and non-digestive disorders and these still further subdivided.

C. The Feeding Case, which by no means stops with the first year.

All of these need varied consideration to a greater or less degree according to age.

First, then, the sound healthy child, one which has reached twelve months of age, weighing something over twenty pounds, (29 inches tall) having a half dozen teeth, standing readily, though as a rule, only beginning to take steps, with sufficient activity to get into all sorts of mischief. Assuming that this child has been under our care sufficiently long to be getting the food which we should advise, what is it getting?

To be somewhat heretical, though much less so than would have been the case a half dozen years ago, one may begin by saying that the value of that most valuable food to the growing child, milk, has in the past been, after the first year, somewhat exaggerated. Milk is very desirable, almost essential, but it should not, as was formerly taught, constitute most of the food for the second year. In fact the child, who then is fully weaned from the breast, will be receiving at six months or surely at seven and possibly at five, the full quart of milk which is all it would, in many hands, ever receive and from that time its increased diet would be made up from other articles. This is not to say that there are not many children who can take and show no harm from the use of one and one

* Read at a meeting of the Ex-Interne Society of the Methodist Episcopal Hospital, April 24, 1919.

half quarts or even more per day, but it is at least doubtful whether they are better by reason of this increased quantity.

The next most valuable article of diet—and these two constitute, in quantity, the major portion of the second year diet—is cereal: not starch or, as it irritates one at times to see written, carbohydrate, for the difference between starch and sugar is radical, the former, in proper form and when a sufficient quantity of other food is given, rarely causing any disturbance, whereas the latter is a most prolific cause. Well-cooked cereal is next to or, as I prefer to say, along with milk, the most valuable element in this second year child's and the third year and the fourth and subsequent years also, food. The vice of the prepared, ready-to serve foods is, in my estimation, much more negative than positive; ten heaping tablespoonfuls of such food as corn flakes or puffed rice contain 100 calories as against three or four tablespoonfuls of cooked hominy or oatmeal or rice. The children brought to us to be fed are not the overweights who can make fat out of anything but the thin who need all the calories we can get in. Forget the calories if you like, I have no intention of making much of them, just say equivalent food values.

Furthermore potato starch is not the equivalent of cereals; it may be in the laboratory and, sometimes, in the child, but the majority can take a considerable but somewhat limited quantity. Yet again bread; some children can take a lot, but there are many whose capacity for even bread which is properly dry and aged is strictly limited; beware of over-breading; and of course the other vice of bread is that it is given in all degrees of newness and sweetness, sweet rolls, crackers and many such, and they do much harm.

The remaining items of important food are vegetables and fruit; these I like to speak of as "tonic foods" because they are not given to supply large amounts of material or mainly to give calories, though some serve well thus, but for roughage, as I believe the farmer calls it, and the mineral salts. Some day we may give those mineral salts loose—and Amino-acids too—also the roughage, but, for the present we are content to think very highly of "green," green in quotation marks, vegetables and fruit.

This leaves out certain articles commonly thought highly necessary. How about eggs? They are useful, many children can use one or more a day but I believe more and more that the average child of any age up to seven is better off with about one egg every other day. Of course we are speaking of normals. Meats? I have a great hankering to be a vegetarian but have not yet achieved that blessed state. When you see a goodly number of special children who must be taken from meat in order to keep well at all; when further you see as good, healthy specimens as you could find anywhere, who through mother's fad or some other cause, have never had meat, you are tempted to renounce it in your practice. Still, if there is any use anywhere for flesh food it is in the growing child. The adult has only to replace protein waste whereas the child has also to add to, and so, if flesh protein can be more or less directly translated into flesh, here is its function. Ordinarily we recommend meat daily in small quantities.

Milk again; many babies can utilize whole milk for months before they reach the end of their first year, but generally I think it

is playing safe to have it slightly diluted, 1/4th or 1/5th, with a cereal gruel until some time in the thirteenth, twelfth or fourteenth month, these being mentioned in the order of frequency in which I desist from diluting. To save trouble in the desperate domestic complications of modern times; when such babies are taking plenty of cereal, I frequently use simple water dilutions, or Dextri-Maltose, disliking cane sugar *because* it is sweet.

It is needless to emphasize that the feeding directions, to be of real value must be written and then they cannot help but be explicit. Printed directions are of no value, at least to the doctor; if a patient is to receive a printed slip for more than some little detail of preparation she might as well receive an order for the book from which the directions were—or might have been—copied. On the other hand, in a well-equipped office, some time may be saved by having various general diets typed in advance and these with minor extemporaneous additions or changes will give the particular child what you mean that child and not some other should have. For psychic value and not for that alone, the individual patient must have individual treatment.

The following would be a typical diet given to a child a little over a year, being copied verbatim from one prescribed:

6-7 a. m. bottle.

9 a. m. The juice of an orange or 3 or 4 ounces of prune juice.

10 a. m. Cereal, bottle, "Bread Stuff."

2 p. m. "Vegetable Broth" or 1/2 coddled egg with a baked potato, sometimes 2 or 3 teaspoonfuls of minced chicken or scraped beef. Bottle; less of this as more other food is taken. Bread stuff.

6 p. m. Cereal, bottle, bread stuff.

10 p. m. Bottle, which may be omitted when possible.

Bottle means milk 32 ounces, water 8 ounces, barley (or other cereal flour) 2 level tablespoonfuls. Cook the barley in the water in a double boiler for an hour, strain, make up to 8 ounces with boiled water, salt to taste, cool before adding milk. Divide into 5 bottles of 8 ounces each. When the evening bottle is omitted, 10 ounces may be given at a time and the amount of water may be gradually reduced. It may be fed from bottle but preferably from a cup.

Cereal means any well-cooked cereal, such as farina or cream of wheat cooked two hours or hominy or cornmeal cooked four hours served with milk or formula and no sugar (or at utmost 1/2 teaspoonful).

Bread stuff means zwieback, Holland rusk, wheatsworth, arrowroot crackers, very dry bread or toast.

"Vegetable Broth" means mixed vegetables very thoroughly cooked and strained, a sample recipe being as follows:

1 medium sized carrot, 1 small potato, 1/2 small turnip, 1 handful of spinach or lettuce leaves, 1 heaping tablespoonful of dried peas, beans, lentils or pearl barley, 1/2 teaspoonful of salt, 1 quart of water. Simmer for four hours or leave in the fireless cooker over night, strain, make up to the quart with boiled water. This, you see, means starchy vegetable, a green or "fodder" vegetable, and a leguminous vegetable; it

can profitably be given two or three times a week and the family need not scorn what the baby does not need.

Make all changes and additions very gradually.

Feed nothing between meals and nothing whatever casual.

Give water two or three times a day.

Not to detail further menus, what would be the main changes during the balance of this second year? At about 15 months, be the same more or less, the order of meals is a bit changed. By this time surely the evening feeding has been omitted and it is usually worth while to approximate the hours and order to adult meals and give what I am fond of calling three and a half meals. Breakfast, dinner early, not later than 12, the main nap of the day then following this, light lunch and supper. Emphasize the *no casual food* for the temptation is large to give pickings from the table. At about this time fruit is added in the form of apple sauce and prune pulp, carefully separated from the skin.

Somewhere between the fifteenth and the eighteenth month, according to the individual's development, meat is given a little more generously and in more variety and a fodder vegetable given daily with the meat and potato, except when "vegetable broth" replaces all. About here also the broth may have a real meat flavor at times, if desired, but this is unimportant.

Also a light dessert such as junket, rice pudding or custard is given, so that by the time a child is a year and a half or two years old, its diet is fairly analogous to that of the adult.

Children should be fed by themselves, as our own meals are usually arranged, to avoid either aggravating them by deprivation—a perfectly reasonable aggravation—or misfeeding them by gratifying them, but: The way to feed a child adult food is to give the adult child food. In other words the adult does not *need* other food than is appropriate for the child over two years of age and the general table diet of the family should and can be adapted to the children, if they are to eat at the same table at the same time.

To take up next the undernourished child: Here again the whole subject would constitute a paper in itself and I wish to note a few items only. In the first place the under nourished child, as presented to us, is of two kinds, the undernourished proper, a true feeding case, and, very often, the child with some disease or defect. It can not be mentioned too often nor over emphasized that we cannot expect to get results from mere feeding in a child who has diseased tonsils and adenoids, bad teeth, or other real defect or disease.

To take up the undernourished proper, in 19 cases out of 20, it is not faulty physiology, but faulty psychology, a case of treatment of parents. Still further, or to interject, it is now generally agreed that people, even children, should be divided into at least three groups, the thin, the fat and the average and to call a child undernourished only because he is below a certain average is to err; yet to call attention to the nourishment of such a child could never do harm.

Taking such undernourished child, then, it is necessary carefully to investigate all the family surroundings; particularly such items as the hours of sleep, airing of bedrooms and the amount of fresh air secured by day; whether the child is too active and "runs off all his flesh" as the popular expression goes or, quite as often whether he—or in this case more often she—gets enough exercise. Then the

food provided for meals and what the child is allowed to have, at and between meals. Not to make too much of the vicious tea and coffee, they are frequent offenders; by all odds the most important are candy, cake, sodas and their congeners between meals. In the vast majority of cases regulation is all that is necessary; secured a really concerned mother disturbed about her child and not too busy or lazy to see that directions are carried out and the diet need not be modified materially or at all from what is appropriate for a fully normal child of the same age. Extra rest is almost always essential and such children, of any age, should have their afternoon nap of an hour.

As to forced feeding I believe that this can be done to a limited degree only; the introduction of large amounts of extra foods defeats its own object by spoiling appetite and digestive capacity. As a rule the afternoon lunch of a good glass of milk—or malted milk or cocoa—goes well and occasionally a small morning one also. Rather a full amount of butter can be used, eggs may be scrambled and so butter and milk reinforce them, instead of eating them boiled. For instance top milk or cream is worth, in calories—food quantity—two to four times as much as the same amount of milk but who can digest, if he is undernourished and needs it, even one fourth—of heavy—or one-half—of light—cream of the quantity he could of milk? Use a little cream, olive oil, fairly full butter and so on but, on the whole, keep pretty close to an average diet and watch the character of the digestion very closely and also watch the extra-dietary conditions. Do not forget that, usually in the younger children, there may be endocrine deficiency and Thyroid medication helps. Also vitamins, practically Malt Extract and Yeast are to be thought of.

Digestive disturbance and conditions: I apologize if these remarks are entirely uncalled for but I see so many cases where these—to me—fundamental conditions are disregarded, that it seems worth while to repeat. The principle of treating acute gastro-intestinal disturbance is the same in and after the second year as in the first; many give a dose of castor oil and feel their duty done; and if the patient does not get well after the first dose, they give another. Meanwhile they feed him, oh, not quite the same as usual but about as near as his rebellious stomach will allow.

Take a child in the second year and later too, and, having given him his enema, perhaps, and his dose of castor oil or, if rejected twice, other laxative, *also* cut his diet to the analogue of the barley water you would give in the first year; perhaps the same barley water but after the first year more likely this will not be taken and instead thin, or often thicker, gruels and zwieback are almost inoffensive. Broth contains no food value of consequence but it is usually well borne and harmless and can often be given in small quantities, either by itself or with the cereal. Then give skim milk—that is my preference, the alternative being diluted milk—then diluted milk gradually less so. Usually vegetables and cooked fruit follow on and last meat and eggs. The peptonization of milk seldom helps.

The onset of an acute disease of indifferent character, so far as digestion is concerned, but with considerable fever as Influenza, Pneumonia, Measles: Usually in children even more than in adults the digestive power is almost entirely suspended with the impact of the onset of such diseases and I am apt to write something like this:

"Feed only (underscored) thin cereal gruels, zwieback, one cupful of broth a day, skim milk, orange juice away from food; urge nothing but water." Incidentally I might say that soda bicarbonate in that water often helps that patient more than the water alone would. Then on the second or third day—of pneumonia for instance—a little digestion and appetite return and diluted or less skimmed milk may be employed. I have several times seen the order written by the Internes "Pneumonia Diet"; you may have a stated diet for your adult pneumonia patient but pray tell me what constitutes pneumonia diet for a babe of two or three years; as well write an order for pneumonia treatment; perhaps the nurse knows both.

Typhoid: I have had no luck with high calories; when a five-year or a ten-year-old reaches us he usually is apathetic, has a coated tongue, no appetite and some distention, not very gross as a rule but fuller than you like to see. With fruit juices, skim milk—or here I more often use cereal diluted milk—or no milk at all, these conditions rather rapidly clear up and after a little an average but not a high calorie diet goes. Of course the children with typhoid usually get well, but the improvement under low diet is striking.

Scarlet Fever: I presume the majority of Scarlet patients are immediately put on a "Milk Diet" but why? Traditional only, I think. It is traditionally the simplest diet but we all know better; in the infant we reduce the diet from milk and why not give the Scarlet patient cereals? Many exceptions do get it and I think are *better* off than with undiluted milk; also they can have fruit juices and, comparatively early vegetables if adequately cooked and strained or equivalent.

THE EFFECT OF ALCOHOL UPON THE TREATMENT AND PROGNOSIS OF MORPHINISM.

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THE TROUBLES of the drug addiction specialist are many and various. Whiskey is one of them. There are a great many varieties of alcoholics. If a man is in the habit of taking a certain definite quantity of whiskey daily, the continuation of this amount during treatment may not interfere to any great extent with the success of the treatment or with the prognosis.

But among morphine addicts, we rarely find this kind of a drinker. They either drink to excess all the time or part of the time. Where this is the case the prospects of securing freedom from morphine are almost none at all, unless the alcohol is discontinued.

There are exceptions to all rules. I once knew of a morphine and whiskey addict, who came to a sanitarium so drunk that he did not know where he was or hardly what his name was, and left the sanitarium off the morphine and equally drunk, who never relapsed to morphine and as soon as he recovered from his spree never touched another drop of whiskey. At least he did not for ten years. The case then passed out of my knowledge.

I have also treated many cases of morphinism successfully, who drank more or less all through the treatment. Some of these

cases have since discontinued the use of the whiskey and have never returned to the use of the drug.

As a general proposition whiskey increases the patient's discomfort during the reduction of the drug. It compels us to devote a longer time to the reduction than would otherwise be needed.

Consequently it makes the expense of treatment greater for the patient. Many addicts have no surplus money to throw away. It makes the addict more disagreeable while under treatment, to those in charge of the place and to his fellow patients.

And more serious than this it increases the tendency to suicide.

It is the universal testimony of all addicts, who use whiskey and morphine together than the whiskey is more toxic.

To many its effects are so disagreeable after they have become addicted to morphine that they voluntarily discontinue its use altogether. On the other hand there are many who had never touched a drop of whiskey, until after they had become addicted to morphine. Some began its use to overcome the depressing effects of the morphine. Others began its use with the idea that they could thus get along with less of the drug.

These two types of drinkers rarely become intoxicated. And they almost invariably keep a stock on hand in their home. By taking a small amount a number of times during the day the total amount consumed in the twenty-four hours is usually much greater than would be the case if they drank at the bar. The combined use of whiskey and morphine is much more deleterious than the use of either agent alone.

Then we have the chronic alcoholic who becomes a morphine addict and continues his whiskey addiction.

We have the steady drinker and the periodical alcoholic. When the latter becomes a morphine addict it is a problem indeed to secure permanent freedom from the morphine. The periodical drinker usually goes to such excesses, that he becomes positively ill. And the only relief that he can think of is morphine. Again they drink till they get into an utterly irresponsible mental condition. While in this state they lack good judgment and fail to appreciate the danger of resorting to morphine for relief.

Many of them are obsessed with the idea that there is no relief from the sickness of an alcoholic debauch except through morphine. This is a great mistake. I can put any alcoholic on his feet without morphine as comfortably for the patient as it can be done with morphine and at the same time accomplish the object more quickly. Many alcoholics are so obsessed with the idea that morphine must be used, that they are not willing that any other method be tried.

In many cases it is this obsession that gets them back into the use of morphine more than the actual effects of the whiskey itself.

Further, the reader is probably already aware that the drunken man is the most stubborn and obstinate creature in existence. The thing that in his sober moments he knows is the very worst thing to do, when he is drunk is the very thing that he insists upon doing.

I believe, though, that many a periodical drinker might save himself a relapse to morphine, if he would rid himself of the idea that there was no way of relief except through morphine. Let him

get the idea that there is relief from the sickness of an alcoholic debauch without resort to morphine just as firmly planted in his head as the wrong idea that nothing will do but morphine and I fancy many would get by an alcoholic debauch without a relapse to morphinism. In the majority of cases the idea that an alcoholic debauch will most certainly lead to a relapse to morphinism is so firmly planted in their minds that they at once give up the fight as soon as they find that they have taken a few drinks too many and go back to morphine. A persistent idea is a great dynamic force either for good or bad as the case may be. We have a most terrible example of this in the idea that was planted by persistent propaganda in the mind of every German that he was superior to individuals of any other race and that Germany was superior to every other other nation, and that therefore they had the power and the right to impose their rule upon the rest of the world.

The idea that relapse to morphine must necessarily follow indulgence in alcohol is a bad one. On the other hand the idea that the convalescent from morphinism can indulge in alcohol with impunity is even worse. For while he might not and of course would not in this case relapse to morphinism because of the idea that this is the necessary sequence of such indulgence, he might relapse from mere mental irresponsibility due to overindulgence in alcohol.

The only convalescent from morphinism who can indulge in alcohol with safety is one who can absolutely combine his indulgence to certain metes and bounds. One needs to be mighty certain of this ability before making the attempt.

There have been many costly errors of judgment along this line. Getting rid of morphine is both costly, troublesome, and inconvenient in every way at the best.

There is always the danger that one may lack the means to take another treatment. Therefore when one finds himself free from morphine it is only a matter of ordinary common sense to take every possible precaution to remain free from the drug.

For the benefit of the morphine addict who may be inclined to indulgence in alcohol I wish to say that such indulgence markedly decreases his desirability as a patient. If he chances to relapse, he may not be permitted to return for treatment.

Many have the idea that their money is as good as another's and that therefore they have the right to return for treatment as many times as they choose.

This is not true. One man's money is as good as another's. But one man's conduct is not always as good as another's.

Because of the greatest good to the greatest number those in charge of a sanitarium have the right to exercise discretion in accepting patients. As I have said before, there are all sorts of alcoholics. One may indulge to excess and be no trouble to his fellow patients or to those in charge. On the other hand another patient may drink considerably less and be such an unmitigated nuisance as to be a positive damage, even from the financial standpoint alone, to the sanitarium, no matter how large the fees are that he pays. Then again there are those who always prefer to drink alone and in consequence do not get other patients into trouble. Then there is the drinker who is offended unless every-

one else joins him. The drinker himself is never a good judge as to whether he is a nuisance or not.

Those in charge of the place have the right to be judge of these matters. But, says the reader who believes in compulsion, why permit any drinking at all? Why not put every patient under such restraint that there can be no drinking? Being to some extent a Yankee I will answer this question by asking another.

Why subject the majority to inconvenience and humiliation because the few do not know enough to behave themselves?

It seems to me that we have too much of this compulsion in our country today. We have some in our population who use alcohol unwisely. Because of this we put the entire population to inconvenience through absolute prohibition.

We had some physicians who either prescribed opiates from mere mercenary motives or prescribed them without due care and discretion. Hence we pass a law putting every physician in the whole land to trouble and inconvenience.

I am not in sympathy with this line of thought myself. I believe in going after the man who is doing wrong and in letting the man who is doing right alone.

While I can not put this thought into execution in the whole country I can do so in my own sanitarium.

The majority of my patients need no restraints. I am willing that those who believe in restraints should have all my cases that need that sort of thing.

Most morphine patients place a high value upon the privilege of returning in case painful illness or accident should cause a relapse and make a return necessary. Those who show by their conduct that they place no value upon this privilege can not complain justly if the privilege is denied them.

As I have already said before ideas exert a marvelous force in this world. In addition to restraints being an injustice to those who do not need them, they cease to be operative as soon as they are withdrawn. But plant the right idea in the patient's mind by repeated suggestion and it continues to be operative long after he leaves you and in not a few cases continues to be operative until death claims him. Hence I think that I have not only justice and right in favor of my way of dealing with my patients but that I have the best of it when it comes to sound reason.

Putting the mixed drug and alcohol addict on his feet is very often a great trial to one's patience. We are often tempted to believe that absolute restraint is the only way. Still I am certain that so far as ultimate results are concerned psychotherapy is far superior to compulsion. In planting ideas in another's mind we should remember that acquainting the patient with our belief regarding the matter has no effect whatever farther than to let him know what we think. You must keep pegging away at the task until the patient thinks the same way that you do about the whole matter. And not only this but he must think so strongly along these lines that he will continue to think the same way to the end of his life.

In order to bring this about we must be careful to suggest nothing but the truth. Otherwise future experience will convince him at some time or other of your mistake. If he finds that you

have been mistaken in one point, he may conclude that you were mistaken altogether.

In an article that I have in mind I intend to describe in detail certain symptoms of degeneracy or general mental deterioration that we sometimes see among addicts.

All that I shall say here is that whiskey and morphine used conjointly put the patient in a condition where these symptoms begin to appear much more quickly than when either agent is used alone.

Whiskey used in connection with morphine is much slower in bringing on these symptoms than cocaine and morphine, but unfortunately when these degenerative symptoms do appear as the result of whiskey they are more intractible.

I have today a gentleman under my care who has used morphine continuously for 46 years. He shows no sign of mental deterioration whatever. He does not even show the symptoms of morphinism. This can be in part explained by the fact that he has never used any narcotic except morphine. He has never been a whiskey drinker. He has been a beer drinker to some extent. He has taken 4 doses of morphine per day at exactly the same hour for years. He has used the drug by mouth, and has not exceeded 4 grains per day. He has been an active business man and still is an active and successful business man. He has none of the appearance of the morphine addict. His extremely methodical use of the drug has I believe greatly assisted nature to neutralize its effects. And further I presume that he must have a much more perfect body than most of us have.

This case is extreme, but it is by no means altogether exceptional. A short time ago I had a lady in the house who had used morphine to *excess* for 32 years. She was a straight morphine case. She had always taken the drug by mouth.

The house was full of morphine cases at the time. She was the oldest patient in the house and hers was the longest addiction. She had by far the clearest brain in the house. Her memory was perfect. She presented the usual symptoms of morphinism. That is, she was seclusive, secretive and she also showed the usual physical symptoms of pallor, malnutrition, constipation, etc.

As a matter of fact I have rarely seen any mental deterioration of consequence in any straight morphine addict.

But we should remember that the continued use of morphine predisposes to the use of other narcotics and alcohol. So much so that the really straight morphine addict is rare. I have seen many who claimed to be straight morphine addicts, but further acquaintance with them disclosed the fact that they had not been straight users of the drug.

The morphine often is the only drug that they use continuously. Many times it will be found that at one time they were heavy drinkers or that they had used cocaine for a greater or less period of time. Or it will be found that they have used various hypnotics to excess. And very many have used everything imaginable that has any narcotic effect.

The reader is well enough aware of the physical effects of the continued use of alcohol to excess. When these are combined with the malnutrition that we usually get in morphinism and with the

toxemia of morphinism the combined effects of the two can not help but be serious.

Serious as this is it is not so serious to my mind as the combined psychopathic symptoms of the two addictions.

Of course we can not absolutely separate the physical from the psychic. The brain needs to reside in a sound body. The physical effects of the two agents are of course productive of the psychic symptoms. While we get toxemia and mal-nutrition in morphinism we do not get destruction of tissue. But if we combine this toxemia and mal-nutrition with the perversion of function and destruction of tissue characteristic of alcoholism the result can not be otherwise than serious. Mental deterioration is just as certain to be seen as not to be seen when morphine alone is used.

It is rare indeed that the morphine addict can discontinue his addiction. The morphine and whiskey user can discontinue the use of whiskey. He should do so, if for no other reason, in order to make the treatment for his morphinism easier and less expensive and also to increase the prospects of permanent recovery. It is much easier for the morphine and whiskey addict to discontinue the use of whiskey, than it is for the straight whiskey addict to do so.

The man who uses both morphine and whiskey to excess will soon find that his business capacity has very much deteriorated.

I can say without the slightest hesitation that had the gentleman now under my care who has used morphine for 46 years used whiskey with it for that period he would not today find himself the successful business man that he is.

It is more than likely that he would not be on earth at all. Or if still on earth it is likely we would find him the inmate of an asylum for the insane, forced to discontinue both agents but still a mental derelict.

In conclusion I wish to say that in no case is the use of alcohol an advantage to the morphine addict.

In many cases it increases to a marked degree the difficulty of securing a cure of morphinism.

The combined use of both agents to excess is a menace to the addict's life and reason.

In extreme cases it renders a cure of morphinism almost impossible.

By a cure I mean permanent relief from the addiction. ◀

DEMENTIA PRAECOX, CONSTITUTIONAL PSYTOPATHIC STATES AND MENTAL DEFICIENCY.

Their Differentiation.

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THESE three conditions are probably the most common which nervous and mental boards had to consider in the examination and treatment of soldiers in the armies of the World War. And, of course, they are equally as common in civil practice.

The differential diagnosis in an individual case may be difficult, if you have not complete data. The question has arisen on numerous occasions in the disability board on which I served in the special neuropsychiatric hospitals devoted to these cases in both the U. S. and the A. E. F., as to just what to designate certain cases brought before us for disposition.

One case in particular I would like to discuss as it showed so many points of interest. I had to pass on this patient, when acting as neurologist to U. S. A. Base Hospital No. 37, Dartford, England, preparatory to returning him to the United States. The diagnosis of our disability board became a matter of controversy with a board sitting at a base port in the north of England. I will not go into the history of the case in great detail, as it is chiefly principles which I wish to bring out. In the two years that we were in the war, I have had the good fortune to be associated with more than a hundred neurologists and psychiatrists, and in this way was able to note the different view points even among specialists. Thus one came to see a case from different angles, as it were.

The following are the essential facts in this particular case:

S. deM., 25 years old, corporal of the 117th U. S. Infantry, was sent to us from the 18th General Hospital, Boulogne, France, on July 12, 1918, with a tentative diagnosis of "Exhaustive Psychosis." The onset was stated to have been apparently acute, coming on immediately after a long battle engagement. When we received him, he had already been ill about two weeks. For the first few days of his illness, there was marked clouding of consciousness. Then he became quite clear, and was perfectly oriented. He had been fearful, and so he remained; he thought he was to be killed for doing an imaginary wrong. When his fear was greatest, he felt as though something came up in his throat. On two or three different occasions during the two months he was under our care, he became acutely excited, and was dazed and perplexed, for two days on each occasion. He had to be carefully watched by a special attendant. He repeatedly said that they were trying to snipe him when he went outside the wards. He asked to be tried by the "article of war" which applied to his case but was unable to state what he really meant by this, but merely repeated the request over and over again. He pleaded to be shot by a regular firing squad. On Aug. 30th he evaded his attendant, and mutilated his face in a disfiguring but not dangerous way by a safety razor given him by a Red Cross worker; i. e. the usual praecox way of a pseudo-suicidal attempt. It required seventeen stitches to repair the laceration he inflicted.

He told us that he had been commanded to cut his eyes and tongue out. In two days he was quiet and tractable again, but he remained very delusional. He said that the men who at my direction were making a croquet ground outside of our wards, were digging his grave.

His history showed that his home was in a small Tennessee mountain town, and that he had had in all only a few weeks schooling; he could not read, write nor spell. One grand-uncle was insane. Once every four weeks, for the past eight or nine months, he had had as he expressed it "queer nervous feelings" at which

times he had had the "blues," without his knowing why. At this time, he also entertained ideas of self-destruction.

The following notes are extracts from an analysis of his personality:

His power of observation and concentration were poor. He was silent, slow and sluggish. Lacked interest in his work; was bashful and usually preferred to be alone. Sensitive, and objected to any criticism whatever. Saw slights where none was intended. Said he was suspicious of people whom he did not know. Was pleased with trivialities. Frequently "hoboed"; was a listless wanderer, and hardly ever held a position for any length of time. Formerly he drank to excess. Psychometrically, he rated about seven years. No feeling of responsibility. His judgment had always been poor. "I loved one girl, but she said if I did not give up drinking, she would give me up. Just to spite her, I drank more than ever."

His present psychotic episode, characterized by an emotional-volitional deterioration, periods of excitement and perplexity, bizarre conduct, self-mutilation and silly delusion, etc., all conformed with the picture of a Hebephrenic Praecox. It is evident that he was a Constitutional Psychopath of the inadequate type, and a mental defective of the grade of Moron.

Any of these conditions can exist alone, or in combination. Here, of course, all three were present.

A strange thing happened in the case of this patient. I took him to Liverpool from our hospital situated near London. While on the way to the United States on an army transport, the "Mesanabe," of the C. P. R. line, he was nearly lost when the boat was torpedoed and sunk by a German submarine, about six hundred miles from land. He was in the water about half an hour before he was picked up by a destroyer and brought in to Wales, and about ten days after leaving us, he wandered into our hospital in Southern England. He still had our records in his coat and we noticed that they had been altered, so as to leave only the diagnosis, "Hebephrenic Praecox." I protested to Headquarters at London at the alteration, and they upheld our exception.

The controversy over this case and the contentions in similar ones in determining the diagnoses in cases appearing before different disability boards, was my reason for writing this article. For in order to give a proper prognosis in an individual case, the full picture and the underlying mechanisms that exist must be understood.

If in addition to the psychotic episode, a condition of feeble-mindedness exists, it is well to state it. For, of course, the praecox reaction type is also found in well educated and even apparently normal patients.

A diagnosis of a Constitutional Psychopathic State cannot be made on a study of the present condition of the patient alone, but must be determined by a study of the personality and the whole life history. The emotional-volitional disturbance, the manner of responding and the character of the associations and reactions determine the type, if a praecox condition also exists.

Of course most praecoxes are psychopaths. Yet there are some who are apparently normal, or have been so up to their

recent episode. One should notice the extent of the abnormality of the personality in every history. It goes without saying that all psychopaths do not develop a Dementia Praecox.

In the patient referred to above, his history from early boyhood showed him to have been a Constitutional Psychopath by his habitual abnormal attitudes and reactions. He had been merely drifting all his life, a poor, unfortunate victim whose ideas never advanced beyond satisfying primitive wants; whose pleasure-pain ideals were those of a child. He was a creature of the moment, and like so many of his kind—when he was called upon to play an adult's role—he took flight into a psychosis. During all his life he had been a person of faulty mental habits. This makes the physician's task so much more difficult.

All "hoboes" are psychopaths, but all are not cases of Dementia Praecox.

A habitual bad way of reacting indicates a psychopath whose chief characteristic is that he is poorly balanced, and is unable to grapple with life's serious problems. In judging feeble-mindedness in general and the grade in particular i. e. (idiot rating up to two years, imbecile up to seven years and moron, seven to twelve years), one should not depend entirely on any of the different psychometric tests, as the Binet-Simon, De Sanctis, etc. For there are other factors of the greatest importance, which you have to consider in making a proper diagnosis, as the opportunities the patient has had and the use he has made of them, the position he occupied in his home, and his environment, his native ability, etc.

There can be no doubt that a patient rating psychometrically as six years, who comes from a poor miserable family in a small Tennessee mountain town and who never had any opportunities for mental improvement, should not be classified in the same way as a person who though rating the same age by a similar psychometric test, and who had had all the advantages given to a child of wealthy refined family living in a large town or city. This is a matter of common sense and experience. And yet how many lay psychological observers fail to consider these factors in making psychometric reports to us. So frequently we have had to modify an opinion that a particular patient was a moron,—as for instance where the patient had few advantages and still made a good living, got along well with his fellow men and showed aptitude in his special calling. In such cases we feel that the patient was really normal and not a moron. For after all a man's ability to earn a fair living, and keep himself well in his own community is the important criterion.

One should remember that the term Constitutional Psychopathic State indicates a permanent condition,—a definite character anomaly. These individuals almost invariably find difficulty in adjusting themselves to their social milieu.

The expression Dementia Praecox refers to a peculiar characteristic way of reacting; and the resulting syndrome may be transitory and recoverable, or; as usually happens, especially, after, a few attacks, is chronic and progressive.

The term moron indicates a moderate grade of mental deficiency or feeble-mindedness, not only in the intellectual sphere, but chiefly because of a lack of absence of natural aptitude. The

more pronounced grades of feeble-mindedness,—Imbecility and Idiocy—are usually so evident, as to necessitate little or no special effort to recognize them.

A careful study of a patient's life history, personality, the present difficulty, and past conflicts, with a careful psychometric estimation will show whether one or more of the conditions under discussion exist in the same patient.

A deteriorating process like Dementia Praecox can, of course, be engrafted on a Constitutional Psychopathic State, or upon a condition of Mental Deficiency. Many Praecoxes not only have shown no mental deficiency in the intellectual sphere, but rather up to a certain period of their lives, are model children and are not infrequently bright.

As we stated previously, the differentiation between these various conditions cannot be made by merely considering the present difficulty.

It has been stated that military life brings out the weaklings,—those who cannot stand the stress and strain of war, the hardships nor even the discipline; and who naturally cannot adjust their personal and home affairs, nor their past and present conflicts to their mode of living—made more acute by the war,—without breaking down, i. e. reacting psychopathically or psychotically.

The inferiority of the Mental Defective is general, whereas that of the psychopath is a special one.

Never make a diagnosis on one or two facts alone, but after a full general survey of the individual case. And never forget that a Praecox does not always show a steady progressive deterioration; also that a man may suffer from more than one condition at the same time.

Where your patient has a psychotic episode, even though mild, do not be content, if he is a Constitutional Psychopath or a moron, to designate him by one of the latter terms and thus neglect the mental upset. Though unusual, a praecox episode may last only a short time.

Where an observer only studies the case during a remission and tries to synthesize diagnosis, often with the aid only of a faulty history, he is apt to fall into error. For I have seen Praecox cases especially of the Katatonic type, appear perfectly well during the interim; and at such times I have had relatives purposely give an incorrect previous history.

I might add here a few opinions on Psychometric tests, which are only of corroborative value.

Healy in his article, "Delinquency and Crime," says, "The diagnosis of feeble-mindedness is to be made by combining tests with studies of the social career. . . . We do find individuals unable to pass tests of seven years of age, who do well enough in their social sphere, and who therefore are not socially feeble-minded."

2. Goddard says, "These tests of Binet and Simon . . . must be used with judgment and intelligence."

3. Parnalee in his work on "Criminology" says, "The Binet-Simon tests is fairly accurate up to 10 years of age, but very defective above that age."

4. W. E. Fernald, ("The Diagnosis of the Higher Grade of

Mental Defect”), “The Binet test does not register as defective certain persons who present plain evidences of mental defect in their personal history, . . . While on the other hand certain individuals who fail to come up to the requirements of the Binet test do not present the usual personal, social and economic reactions of mental defectives. . . . the futility of absolutely following any system of scoring. . . . Dr. Healy and Dr. C. G. Fernald both emphasize the fact that the application of psychological tests should not constitute the exclusive method of examination, but that it is one method available among others, and to be supplemented by them. Absolute standards should be used with great caution. There are many grades of intelligence among normal people. Normality of intelligence is not a fixed strength of intellect. From a clinical point of view the border line case of the moron grade differs from the case of actual imbecility quantitatively rather than qualitatively.”

So while it is well to note the psychometric age of a patient, it is ridiculous to quibble over whether the patient rates six or seven or eight years. The more important determining factors, however, should never be omitted in summing up the case.

Dementia Praecox patients nearly always show remissions. True I have seen them go on to a progressive deterioration after the first Psychotic episode, but this is the exception and not the rule. After each attack you notice defects, especially in the affective or volitional spheres.

If you are asked to express an opinion as to whether a case is one of Dementia Praecox, rather than a Constitutional Psychopathic States on a few present facts, you will frequently find this to be an impossible task. Such a query is frequently propounded to the Neuropsychiatrist acting on army disability boards. In many of these cases the ward surgeon may have failed to have forwarded a complete clinical history, to say nothing of having omitted all data relative to the personality analysis of the patient, his social status, past and present conflicts, opportunities, etc. A decision hurriedly given quite probably will need revision later on.

And the necessity of making an exact diagnosis,—drawing a full picture,—is evident. On this depends your prognosis. Even in the average enlightened American community mental deficiency is not uncommon. It is a condition which cannot be cured. Such patients need special training.

Constitutional Psychopathic States are very frequent. They require careful analyses, so that you can give intelligent instruction to the patient, as to his weaknesses, capabilities, and limitations. Under proper supervision such patients can be greatly helped.

As for cases of Dementia Praecox, many of them can be cured, especially those of the Katatonic form, if they are properly understood and managed according to the dictates of modern psychiatry. You can assist such patients to avoid future outbreaks, if you learn the complexes and conflicts which cause the upset. In this way you help the patient to properly adapt himself to his surroundings.

In conclusion I will note the most important diagnostic criteria to be considered in studying these cases,—when these conditions exist alone.

Whereas in *Dementia Praecox* we have autopsychotic disintegration of the personality, in Constitutional Psychopathic States the reaction is to some definite cause,—an exaggeration of the normal,—and is usually allopsychic (environmental). You see deterioration in Constitutional Psychoahtic States even after repeated upsets. These latter upsets disappear if you remove the cause or causes. The *Praecox* is at first normal; at some definite time a change is noticed. But the Constitutional Psychopath has been considered abnormal from an early age. And he does not show the mental loss and impairment that the *Praecox* does. Nor does he suffer from incoherence, blocking of thought nor the fantastic states of the *Praecox*. Neither does he show the profound splitting of the Psyche as does the *Praecox*,—from whence is derived the popular synonym for *Dementia Praecox*,—*Shizophrenia*. In the case of a *Dementia Praecox* patient you get a history of a definite onset, frequently beginning about the time of puberty. The Constitutional Psychopath may show a long train of immoral acts, but his motives differ. There is one general motive,—self-gratification. But in a *Praecox* there are conflicts, doubts, paralysis of the will, cynicism, stubbornness, etc., and rapid psychic changes, resulting in abnormal conduct.

The following are some of the chief points of differentiation between *Dementia Praecox* and Mental Deficiency. In discussing Mental Deficiency we refer especially to the grade of moron. The history of the moron dates from early childhood or infancy. The moron shows no delusions nor hallucinations. The moron shows an absence of early acquired knowledge, unlike the *praecox* who exhibits evidences of such knowledge even when deterioration is present. The early life of the moron is abnormal. There are no remissions.

Illiteracy alone, due to lack of opportunity, does not constitute feeble-mindedness. More important is the absence of native ability. Psychometric tests are valuable aids but must not constitute the only means of diagnosis.

The most difficult cases upon which to pass judgment are those which are apparently normal, yet who are superficial in knowledge, and know a little of everything, but who are overcredulous and are easily led astray. Such individuals indulge in excesses and are always in doubt as to their real motives for action.

A *Praecox* may be likened to one who has had a fund which he is losing or has lost. A moron never had any fund to lose. A Constitutional Psychopath may have a fund but having little command over himself does not know how to make the proper or the best use of it.

In many of the cases coming to the U. S. A. General-Hospital No. 30 from the A. E. F., it was remarkable how often one of these conditions described above was associated with different Psychoneurotic syndromes.

WORTH WHILE LABORATORY AIDS IN PRACTICE

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LABORATORY procedures in medicine are individually valuable to a very variable degree. Some, like many newly invented household articles of theoretical usefulness, are so rarely of even slight service that they are more of a nuisance than anything else, and might as well be dispensed with altogether. Of the worthwhile diagnostic measures there are two classes; those that supply such definite information that a diagnosis is often altogether decided thereby—such as a positive blood culture; a spinal fluid examination for the organism causing a meningitis; a sputum examination which proves positive for tubercle bacilli; and those, by far the greater number, such as blood counts and Wassermann tests, that must be weighed in conjunction with other evidence, such as the clinical manifestations. Human activities, not excluding the healing art, are so beset by errors that it is always well to have as many side lights on a given question as may conveniently be brought to bear, if for no other reason than by the information derived from one source to corroborate or controvert that from another. Thus the question of an error, either in the laboratory or at the bedside, is likely to be raised whenever both findings do not agree, and the medical attendant by either repeated tests or other laboratory procedures, or by reconsideration of the case clinically, is enabled to do justice to both his patient, himself, and science.

Without further preliminary discussion let us consider various procedures.

BACTERIOLOGICAL

Blood Cultures. These usually give very definite information, provided the media and methods used for the cultures are such as to permit the growth of the bacteria sought. Septicaemia from streptococci, staphylococci, etc. will give definite and reliable results with anything short of wretched technique, but if one wishes to make a cast, as the fishermen say, to land any living thing which may be in the blood stream, the case is different. Then not only must one inoculate the blood into culture media of different kinds, and incubate under different conditions for varying periods, but a carefully stained smear of the fresh blood should be gone over as a check upon the cultures in which organisms might fail to grow, even though they were actually present in considerable numbers in the blood.

One may miss organisms, such as the so-called gasbacillus, which will not grow ordinarily aerobically, by such a simple variation in procedure as failing to boil the tube of broth shortly before inoculation, the last operating to expel the air, which is

This case was reported by Dr. Little at a meeting of the Pediatric Society some time ago. It occurred in the practice of Dr. P. Wesenberg, and was treated by repeated transfusions of blood from a donor immunized by injections of a vaccine of the patient's staphylococcus.

always absorbed upon standing. I reported a case recently in which this organism, rare in the literature of other than traumatic conditions, occurred in the blood of a woman (subsequently determined at autopsy to have suffered from cancer of the liver) who for many months before death manifested a marked pyrexia.

Among other conditions in which we can expect a blood culture to give positive results are rheumatoid manifestations with pyrexia, acute endocarditis, pneumonia (often) epidemic cerebro-spinal meningitis, typhoid, or really any acute infection with marked constitutional symptoms. Thus a blood culture would be in order to aid in the diagnosis of any obscure pyrexial condition.

The interpretation of a positive blood culture is of course that bacteria in greater or lesser number are circulating in the blood. A positive finding of either staphylococci or streptococci is of very bad omen if the clinical condition of the patient is poor, otherwise it is not so grave. For instance, positive blood cultures in acute rheumatism or even in pneumonia are not of serious prognostic import, while the same in puerperal or furuncular conditions decidedly are. However, even the latter classes of cases are not hopeless.

I recall two which will illustrate differences: One was a man of about 30 who had a moderate sized boil on the back of his neck. He has been acutely ill with septic symptoms a little over 24 hours. He was perfectly conscious, but evidently gravely ill, when I took a blood culture. The culture was positive for staphylococci and from a blood smear I saw that the organisms were more numerous than the leucocytes—apparently exceeding 20,000 per cubic millimeter. This patient died a few hours after the specimens were taken.

The other case was post-influenzal—a child, sick for several weeks. Her blood culture was positive for staphylococci, which however were not nearly so numerous in the blood as in the first described case. The child had already developed several abscesses, and, later, developed others, some involving joints and epiphyses, but she eventually recovered.

Cultures from Lesions. The most frequently taken culture is from the throat, to aid in the diagnosis of diphtheria. This procedure is so well known and so generally used that it is well to use it as an example of the mistakes that practicing physicians and laboratories together make of what may be called dumb show procedures. The clinician hands in a culture and the laboratory hands out a report, with the consequence that no one except the diphtheria bacillus enjoys the many misses in diagnosis. Physicians frequently make cultures from the throats of patients upon culture media that is either already infected from imperfect sterilization, or accident, or that has dried out, with the consequence, in the first instance, that the contamination outgrows and prevents the possibility of the development of any diphtheria bacilli planted, and, in the second, that these bacilli do not develop on the dried medium. Since the laboratory cannot always tell that this has happened, the report of "no diphtheria bacilli present" is often taken by the physician to prove that the patient has not diphtheria. Another factor may affect the result, and that is the number and rate of growth of bacteria, other than diphtheria bacilli, planted with

these latter in making the culture. A physician sent me the other day two cultures, made respectively from the nose and mastoid—operation wound of a child patient. He told me that a culture from the nose had previously been examined and diphtheria bacilli found, and that the nose lesion, clinically, was diphtheritic. I incubated the cultures and examined smears. Smear from the mastoid culture showed many typical diphtheria bacilli, and micrococci; that from the nose nothing but micrococci, after a search of the usual duration and degree of thoroughness. However, I had made smears from the swabs that accompanied the cultures and had seen diphtheria bacilli in each (many in that from the nose, very few in that from the mastoid) so that I extended my search, and finally located a few diphtheria bacilli near one edge of the smear. To confirm the conclusion I had made sometime before that in examining cultures alone—without smears from lesions—one might easily miss a given organism among other varieties, I took the slides to the laboratory which had made the first examination and asked to have them looked over. Pronouncement was very prompt—Mastoid culture smear, diphtheria bacilli; nose culture smear; no diphtheria bacilli! I then said that my findings had been the same, but that, guided by the lesion-smear, I had extended my search successfully. The examiner reexamined the slide, and very soon discovered the diphtheria bacilli, as I had done.

Some time ago I had a culture of a diphtheria bacillus employed by a large laboratory in the production of antitoxin, and as I noticed that the organisms were far from being typical diphtheria bacilli in shape I showed smears of the culture to several expert diphtheria culture examiners. I told them what the culture was. One very frankly said: "I never would pronounce that a diphtheria bacillus if I met it in a smear from a throat culture." The other man, of the supposedly cautious, habitually hedging type, declared: "There are *some* diphtheria bacilli there!" Of course, they were all diphtheria bacilli, but their shape and manner of growth had so varied, on long cultivation, from the typical bacilli found in diphtheria, that no one could have determined their nature by looking at them through a microscope.

Why is it that cultures besides smears are desirable in the laboratory diagnosis of diphtheria? The answer is that smears from some diphtheritic throats show bacilli that are not typical enough in appearance to base a diagnosis upon, but which develop in culture the necessary characteristics. In case a culture is sent alone, the examiner can easily make a lesion smear from the material on the swab.

In cultures from ears, eyes, nose, vagina, urethra, abscesses sinuses, etc., one must always take into consideration the nature of the organisms searched for, and choose his medium accordingly—above all a check lesion-smear should always be examined in connection with the culture. One should also recollect that the absolute identification of some organisms which may be isolated in cultures is a matter of considerable labor, and, owing to our imperfect knowledge of bacteriology, often an uncertainty. In many instances in which all that is required is the knowledge that may be gained from the examination of a smear, the taking of a culture is superfluous—for instance, when the question of a gonococcus infection is concerned. This latter brings up the question of deter-

mining the absence or presence of gonococcal infection in chronic urethral discharges. In the laboratory one has to stand or fall by the presence or absence of the typical gonococcus, since if there be variations in the shape and Gram-staining qualities of gonococci after the acute stage of the infection has passed, such organisms could not be identified on a slide—they might even fail to grow typically in culture. Cultivation of a suspected gonococcus is rarely undertaken for purposes of identification; it is of course perfectly feasible.

I recollect hearing an anxious clinician ask a laboratory man who had examined several smears and done a complement-fixation test in a vain search for evidence of the persistence of a gonococcal infection in a patient. "Isn't there something else that may be done to prove the absence of gonococci?" "Yes," replied the flippant though truthful student of infection, used to animal inoculation tests, "have your patient try it on a virgin!"

In making a lesion-smear, either from the urethra or elsewhere, one should aim to make it as thin and as uniform as possible, since the ease and accuracy of the examination thereof depend so much on satisfactory staining (as by Gram's method)—alone obtainable with smears so prepared.

Sputum. As ordinarily conducted, the examination of sputum is only to determine whether or not the tubercle bacillus is present. While this requires only a single and definite technique, I have seen the carbol-fuchsin method so applied as to make it very difficult to decide whether some beaded organisms present retained the fuchsin, as tubercle bacilli do, or not. That errors are made in such examinations is indicated, I think, in the first place, by the mere possibility, since there was never a hole so big, or so plainly marked, but that some one did not, at some time, fall in; in the second place, we not infrequently meet cases of chronic lung disease, with even profuse expectoration, in whose sputum tubercle bacilli cannot be found upon repeated examination, but whose history states that at such and such an examination these organisms were discovered.

For the past three years I have been making a study of the sputum of chronic non-tubercular lung disease, a detail of which will soon be published. I will state here, however, that, taking specimens of sputum from over thirty cases not showing tubercle bacilli (patients of Sea View Hospital, Otisville Sanatorium, and of various physicians) I cultivated organisms, classed as higher fungi, which have been recognized in the literature as the cause of some cases of chronic lung infections in both lower animals and man. Those organisms included yeasts (blastomyses), aspergilli, and penicillia. As these organisms in sputum, and in cultures under varying conditions, are quite variable, satisfactory identification of the sputum forms with the culture forms was difficult, and eventually led into some complicated questions of evolutionary changes. This was because some of the fungi isolated could be so cultivated that they would no longer develop to the spore bearing stage (in which such fungi can alone be identified) and as apparently similar aborted forms were all that could be cultivated from some sputums. The cultures even raised the old question as to whether all yeasts were not aborted higher fungi, and, altogether, seemed to present a demonstration of the permanence of changed characteristics, acquired within a few hours on culture media.

Returning to the clinical side of the question, I may say that cases of chronic non-tubercular lung disease are common, and that the organisms undoubtedly causatively connected therewith may be isolated, and often identified. The patients are usually much less affected than the tubercular, and the disease consequently of much longer duration, frequently resembling what has been called chronic asthma, although extensive destruction of lung tissue is sometimes caused. The sputum of these cases is quite commonly quite watery and, on standing, shows a white flaky sediment.

Besides excluding the frequently made presumptive diagnosis of tuberculosis, by bacteriological examinations of such sputums, we gain knowledge which may be put to account in treatment, since various medicaments have been successfully used in combating these non-tubercular infections, notably the iodides in pulmonary blastomycosis.

Exudates. If, in the examination of an exudate withdrawn aseptically from such places as between the pleura or from around the joints we find no organisms, after a proper search by smear and by applying various methods of bacterial cultivation, although many pus cells be evident, we may conclude that any infection originally present has been checked, and that the organisms were destroyed by leucocytic digestion. If the contrary is the case, the infection is at least still actively potent. In connection with the recent epidemic of influenza my findings in several pleural exudates consequent upon this disease were varied, and the cases clinically much affected by the bacteriology; one case, in which the pleural fluid gave a staphylococcus and a streptococcus, I was told presented a heavy fibrinous membrane over the pleura and was rapidly fatal, as were also two in which the latter organism alone was recent. Another in which influenza bacilli were also to be found had a like result, while two, showing pneumococci alone, recovered.

In rheumatic affections the withdrawal of exudates around joints for bacteriological examination is beneficial therapeutically in the same way that this process operates in connection with pleural affections. Rheumatic exudates, freshly formed, usually show streptococci, and when vaccines are used in the treatment of arthritis, as in many cases they may be advantageously, the aspirated fluid is the best source of culture.

Joint exudates, in cases supposed to be of gonorrheal rheumatism, may reasonably be examined to confirm or disprove the diagnosis, which, I imagine, would be of considerable moment in directing effective treatment. I examined, recently, smears from prostate and urethra of a supposed case of gonorrhoeal rheumatism, in which, while no gonococci could be detected, Gram-positive cocci were so very numerous as to suggest that the old urethral lesion might have served as a point of entrance (as diseased teeth are known to do) for these organisms, a secondary invader, to reach the joints. The patient's condition of chronic alcoholism was one known to predispose to rheumatoid affections.

Cerebro-Spinal fluid. Examination of this fluid is a recognized necessary routine in all conditions resembling meningitis; in the first place to direct treatment, since we have nowadays two specific sera (anti-meningococcus and anti-pneumococcus, 1) the use of which must be directed by bacteriological findings. As to the latter, not only is a smear examination of the fluid's sediment necessary, but

frequently a culture, since a few meningococci or a few pneumococci, adherent to or within the leucocytes, cannot always be differentiated by the Gram-stain—for one reason that organisms attached to leucocytes are frequently degenerated and, although of Gram-positive nature, may appear Gram-negative. I saw this difficulty well illustrated in the case of a little girl of 12 who manifested little more than a severe headache and fever. Her spinal fluid, to the naked eye, was clear, but microscopical examination disclosed a considerable cell increase and many polynuclears, to which diplococci of uncertain Gram-staining qualities were attached. A culture developed a plentiful growth of meningococci.

As is well known, other organisms, such as streptococci, influenza bacilli, etc., have been found in the cerebro-spinal fluid. I recall a case of a woman of about 40 who had consulted her physician for a nose discharge, and who a week thereafter, was seized with an acute attack of headache, fever, total blindness, and delirium. A spinal puncture gave a cloudy fluid in which I found great numbers of long-chain streptococci. The patient died within 24 hours thereafter.

Dark-field Condensor Examinations in Suspected Syphilis. Such examinations as these are usually undertaken to add laboratory findings to clinical evidence in diagnosing suspected chancres. That more than the latter is needed to be certain of a diagnosis is apparent to all who have required further and later evidence, such as secondary manifestations, or positive Wassermann tests, as corroboration of guess diagnoses. Besides lesions which everyone knows have to be distinguished from chancres, the ulcerations produced by the organism (a spirilliform-bacillus) of Vincent's Angina, especially on the genitalia, have to be ruled out in determining the nature of some hard sores. The war medical literature has had several articles (one by myself, in the Am. J. of Med. Sciences, May '18) dealing with the various manifestations of Vincent's Angina infection, including genital lesions. Even previous to the war, this feature of this disease was the subject of an article "The Fourth Venereal Disease" (J. A. M. A.).

In primary syphilis, I believe it to be the practice of some physicians to await later manifestations or the progress of the infection to an extent sufficient to give a positive Wassermann, before beginning active specific treatment. With this procedure, a dark-field-condenser examination of scrapings from the suspected chancre is hardly worth while, but in case the physician believes in specific immediate treatment, which may abort the infection, a dark-field-condensor examination is of great value in confirming clinical findings.

SEROLOGICAL

Wassermann Tests. There is no difference of opinion in respect to the value and meaning of a three-plus or a four-plus Wassermann test, provided errors in technique are ruled out, and many an obscure cause of disease has been cleared up thereby. Not infrequently affections usually due to causes other than syphilis are brought to the attention of physicians who, through the agency of this test, discover the syphilitic factor and are enabled to affect cures otherwise impossible. A most striking case of this nature was that of a young, married woman for whose physician I did such

a test recently. She suffered from severe gastric disturbance and had developed, I was told, almost complete pyloric stenosis. A consultant suggested a Wassermann test, although the history was indefinite, which gave a three-plus.

Interpretation of Wassermann test results of two-plus, one-plus and plus-minus cannot be correctly given without considering the factors known only to the attending physician. To illustrate, a young man entered the army a year ago, after a course of anti-syphilitic treatment, which left him with a three-plus Wassermann. During his army life he had no treatment whatever and upon his return, recently, test of his blood serum gave a plus-minus. In all probability this result was due to the invigorating effect of his army life, which carried his natural resistance to the disease almost to the point of spontaneous cure. The effects of the indoor life to which he has returned would undoubtedly cause such relapse, if his treatment were not resumed at once, that a definitely positive Wassermann could soon be obtained in his case.

Another interesting case, in the practice of a Brooklyn physician, which came to my notice through the Wassermann test was that of a young woman who had been for a short while in an insane asylum, where her blood had been tested and a one-plus Wassermann obtained. She had no syphilitic manifestations. After her return from the asylum her attending physician was consulted for two small sores on one of her legs. Bearing in mind the one-plus reaction, he sent her to me for another test and, as the institution result had very much frightened the girl's mother as to the family's health, she accompanied the daughter. The Wassermann test in both cases was plus-minus, a result which I think justifies the very wise conclusion arrived at by the patient's attending physician, to disregard, for the time being, the possibility of there being a syphilitic factor involved.

While a negative (—) Wassermann test indicates entire freedom from syphilitic infection, since it has been established that actual syphilitics in every stage occasionally give negative reactions, in cases with suspicious symptoms it is necessary to have such a negative reaction confirmed by a second test; and, if nerve center symptoms be present, by a test of the spinal fluid, as from 10 to 30% of cases of cerebro-spinal syphilis (including locomotor ataxia) give a negatively reacting blood serum. It should be remembered that after the syphilitic infection has been acquired several weeks elapse, in many cases, before the blood serum reacts positively.

It is inadvisable to take a specimen of blood during or immediately following ether or chloroform narcosis, since occasionally specimens so taken have been found to give a positive reaction when the patient was non-syphilitic and the blood negative at other times. Neither should blood be taken from one who has imbibed within the 24 hours a considerable quantity of alcohol (3 ounces) since such amounts have been found to tend to cause an otherwise positively reacting serum to give a negative result.

Blood or serum in which, through contamination, bacteria have grown, is not suitable for the Wassermann test, neither should, as a rule, the results of tests made of blood or serum many days old be relied upon.

Leprosy, relapsing fever, yaws (a tropical disease), and scarletina are the only diseases other than syphilis that might (according to reports) give positive results with the Wassermann test. In regard

to malaria, a recent extensive investigation seems to prove that no stage of the disease can give a positive Wassermann test, as some had believed.

Wassermann tests of the spinal fluid are absolutely necessary in cases with suspicious cerebro-spinal symptom, for the reasons given above. The fluid obtained for the test must be free from blood, and should be tested as soon as possible after it has been drawn.

Complement Fixation Test for Gonococcus Infection. The only other routine use to which the complement fixation reaction has been applied is in chronic gonorrhoea. Either from the failure of the urethral lesions to excite sufficient constitutional reaction to the gonococcus, or from the shortcomings of the present technique, the usefulness of the reaction is very limited. In illustration of this, it should be mentioned that only a very small number (under 5%) of the sera submitted for this test give four-plus positive results, and that even those from persons known to have had recent and severe urethral attacks often fail to give the reaction. Cases that have extra-urethral lesions give, as a rule, definite and long lasting positive reactions, such as those developing gonorrhoeal rheumatism. I did a test the other day on a man who, 8 months before, had had an attack from which he had apparently entirely recovered, not showing the slightest urethral or prostatic indication of disease. Yet his blood serum gave a four-plus reaction, a result which I ascribed to the effect of the suppuration (probably gonococcal) of an inguinal gland, which complicated his urethral attack, in developing anti-bodies in the blood.

Widal Test. In connection with this test, besides mentioning the well known facts that, in actual cases of typhoid, the reaction is rarely present before the fifth day of the onset and that those who have had either the disease or typhoid vaccine, within a year or so, may give the reaction, regardless of the nature of the acute attack to determine which the reaction is made, from the laboratory standpoint it should be stated that in the use of the dried blood specimens commonly submitted, the dilutions employed and reported are mere guess work, and depend entirely upon the personal equation. Cases of fever due to paratyphoid infection (rare in New York City) will not give a positive Widal with typhoid bacilli.

Pneumococcus Type Determination. Serological reactions between anti-pneumococcus serum and pneumococci present in sputum from pneumonia cases are theoretically of some value, but until anti-pneumococcus serum corresponding to more than one type has been made effective they are not of much practical utility. The reason is that since the use of the acknowledgedly effective serum produced in reaction to type No. 1 is recommended in all cases, and as no other type serum of active qualities is available, "what's the use?"

An interesting fact in connection with the pneumococcus types is that while previous to the recent epidemic of influenza more than 25% of the cases of pneumonia in New York City was due to type No. 1, not over 10% is now due to the same cause. This is capable of various interpretations, the most conservative of which is that other types of pneumococci which, unassisted, were incapable of causing a pneumonia became capable of so doing with the assistance of the influenza bacillus. Another, which might occur to anyone who keeps the fundamental principals of biology in mind, is

that the various kinds of cocci (including the different types of pneumocci) which are found constantly present on our bodies in health represent descendants of saprophytic organisms which at some previous time became parasitic and caused an epidemic of disease. If this happened once, and it must have, it can happen again, and when one knows that the influenza bacillus which caused the recent epidemic often occurs both in lesions and cultures in forms indistinguishable from cocci, the possibility that it may have added to the "types" of pneumococci cannot be denied. Pleomorphism among micro-organisms is a fact as easily demonstrated as that the world is round, in spite of the vaporizings of those who like the courtiers of the naked king in Hawthorne's *Wonder-Book Tales* refuse to acknowledge the evidence of their own eyes, and turn to imaginary invisible "filter-passers" and the "yet-undiscovered" for explanation of the simplest problems.

URINE ANALYSIS

Urine analysis is usually performed in all cases in which the symptoms point to kidney involvement, and, frequently, as a routine measure in all illnesses, and as a part of those periodical physical examinations which have been recommended for the general public. A good deal of reliance is placed upon the procedure and, usually, the result of a single examination in obscure cases of illness, if negative, is considered to eliminate the urinary tract as the seat of the disease. This being the case, one should be certain that the main procedures, simple as they may be, in a routine urine analysis are properly carried out. To show how easily a slight oversight may vitiate an examination I quote the following: A women patient of about 30 had been having for 2 months repeated attacks of chills and fever, occurring at intervals of several days to a week. Blood counts were made, blood cultures taken, careful physical examinations were conducted by both the attending and a consulting physician. A specimen of urine was collected and submitted in the usual way; the result of the examination showing nothing but a trace of albumin, few bladder and vagina epithelia and leucocytes, and many bacilli—all findings quite usual in women's urine, contaminated with vaginal secretions. Finally, a call was made to take a catheterized specimen which, when drawn, was cloudy from masses of bacilli, subsequently proved to be colon bacilli. The laboratory findings were identical with those of the previously examined specimen, but I was able to state that the masses of bacilli had been formed within the bladder, and were not due to proliferation of organisms that had got in with vaginal secretions, although the patient had not manifested symptoms of even an irritable bladder, the colon bacillus infection had been sufficient to run up her temperature to 103F.

A finding of albumin in the urine means practically nothing, unless we ascertain its source. In women it may come from the vagina, in men from disease of the urethra or prostate and, in both sexes, from the bladder, sometimes as a result of hemorrhage. Thus we see the absolute necessity of an accurate microscopical examination of the urinary sediment, not only for casts, but to determine what part of the urinary tract is involved; and this necessitates identification of the epithelial cells seen, whether from the kidney,

kidney-pelvis, ureter, bladder, urethra, prostate, or seminal tract. Occasional casts in a patient's urine, if accompanied by noticeable amounts of albumin from the lower urinary tract, may lead one to believe that serious kidney disease is present unless note is made of all the microscopical findings and proper credit assigned accordingly. A microscopical examination should identify epithelial cells from the convoluted and the straight collecting tubules and the pelvis of the kidneys; cells from the ureter, bladder, urethra. In the male, cells from the prostate and seminal tract; in the female, epithelia from uterus, vagina, Bartholin's glands, since in other than catheterized specimens vaginal discharges commonly contaminate the urine. Besides epithelia, the microscope should identify red and white blood cells, mucus strings, connective tissue filaments, fat, various crystals, and tell the general character and number of any organisms present. With stale specimens of urine not only is accurate microscopical diagnosis much more difficult, but many of the chemical tests are rendered inaccurate, for instance, fermentation will dissipate part or all of any sugar present.

Feces. While feces is examined most frequently to search for various animal parasites or their eggs, special bacteriological examinations are not infrequently called for, as for dysentery bacilli or of a suspected typhoid carrier, or in connection with various inflammatory conditions of the rectum.

The main reasons for mentioning fecal examinations is to point out the proper procedure in taking a specimen, so that an examiner need not have a job put up to him like looking for the proverbial needle in the haystack. All of the organisms above mentioned, and even pieces of tumors and blood, are easiest found in the intestinal mucus admixed with as little fecal matter as possible. For this purpose, (unless clinical conditions forbid) the patient should be given a saline laxative (such as citrate of magnesia) and, after passages consisting entirely of fecal matter have ceased, and the discharge consists mainly of water and mucus, some of this should be caught in a small sterile vessel or large mouthed vial and sent at once to the laboratory.

In this connection I will mention an occasion in which this procedure was followed, incidentally. The patient (a relative of mine) was suffering from toxic (exophthalmic) goitre, and had been given a saline to aid in an attempt to overcome an acute attack, brought on by a three months course of iodine—one of those "strange prescriptions of some physicians" as a professor of physiology characterized it. I secured a specimen of the intestinal discharge, thinking the occasion a good one to make a bacteriological examination to satisfy curiosity as to the flora present in a case of toxic goitre, since one of the theories of this disease is that it is caused by intestinal toxemia. A smear examined disclosed a few colon bacilli and enterococci and, to my surprise, masses of spirilla-bacilli, similar to those met with in Vincent's Angina infection (which is not confined to the throat and has been reported—see article alluded to before—as causing intestinal inflammations). Two days after this examination the patient developed an attack of acute appendicitis and died, as one would expect from the effect of a general anaesthetic upon the heart of an advanced case of toxic goitre.

GASTRIC CONTENTS

In examining gastric contents for anything but hydrochloric acid (such as pieces of tumor or blood) it is best to take a washing in the morning before eating anything. For the acids, the classical method (test meal, etc.) is, of course necessary. No analysis of gastric contents is ever anything but an adjuvant of the clinical examination.

BLOOD

It is infrequent that a clinical diagnosis of anemia is borne out by laboratory findings, but, since the cases involved are usually of obscure nature, the blood examination often serves to throw light upon the situation. Findings in a blood examination may be classified and interpreted as in the following table:

A word should be added in regard to the interpretation of leucocyte counts in suspected inflammatory conditions. As the reader knows, the average leucocyte count, in health, varies between 6,000 and 10,000, and in inflammatory conditions (and some infectious diseases) mounts to 30,000 or more. The polymorphonuclear neutrophile leucocytes in health make some 60% of the total, but in inflammatory conditions (and in infections, as above) increase to 80% or more of the total. While it is hard to say just what increase in these factors indicates a degree of inflammation justifying operative interference (as in a case of appendicitis) I think that one might say that unless the leucocytes exceeded 15,000 per cubic millimeter and, particularly, unless the polymorphonuclear forms were at least 80% of the total, that, so far as blood indications can be relied upon as a guide, operations could at least be delayed.

That in the latter class of case (appendicitis) leucocyte counts are of great value is indicated by the fact that we often encounter cases (usually of chronically recurrent form) that present severe regional pain, but a normal blood picture, and which clear up in a day or so.

An increase in the number of lymphocytes, especially an increase in number in comparison to that of other varieties (often equalling the neutrophiles) is commonly associated with irritation, as from a local infection, of one or more lymphatic glands.

Transfusion Tests. Transfusion of blood is a not uncommon procedure, nowadays, and while I have seen it done in a great many conditions in which it was hard to understand the reason for it, there can be no doubt but that sometimes great good may be accomplished thereby. However, like the man in the story who was warned that if he needed a gun at all he would need it "bad," patients who need transfusion rarely get enough either in quantity or frequency.

Prior to such operations it being necessary to test the blood of the patient and of those from whom blood is to be taken to determine whether the bloods are compatible (that the plasma of one does not agglutinate or dissolve the cells of the other) there are available two classes of tests which may be applied at the bedside. The first class requires the separation of serum and of erythrocytes for all bloods examined, while, by the second, practically the same results may be obtained by mixing the blood of patient and of

SECONDARY ANEMIA (including Hodgkin's disease)					CHLOROSIS	PERNICIOUS ANEMIA	LEUKEMIA
NORMAL BLOOD		LEUCOCYTOSIS					
Erythrocytes	5 million per cubic millimeter	No change	Moderate decrease, changes in character of cells variable	Moderate decrease	Moderate decrease (as much as 80%). Cells irregular in shape, and staining nucleated cells present.	Considerable decrease. Cells vary in character as in pernicious anemia.	
Haemoglobin	90—100%	No change	Moderate decrease	Marked decrease	Decreases with cells	Decreases with cells	
Color Index	1	No change	Variable	Very low	No change	Low	
Leucocytes	6-10 thousand	Increased rarely to over 50 thousand	Depends upon associated conditions	No change	Decreased	Marked increase (to 100 or 300 thousand)	
Polymorphonuclear neutrophile	60%	(Percentage increased)			(Percentage decreased)	(Percentage decreased)	
Eosinophile	0.7	Decreased				Increased in spleno-medullary variety	
Basophile	0.3	Decreased			No Change		
Lymphocytes	31	Decreased			Increased	In lymphatic variety, lymphocytes are responsible for excessive number of leucocytes; in spleno-medullary variety, myelocytes make up the increase	
Large Mononuclears (including Transitionals)	8	Decreased			No change		
Placques	200,000	Variable	Variable	Increased	Variable	Increased	

donors in various proportions in test tubes containing sodium citrate solution (to prevent clotting) and, after keeping the tubes immersed in water of body temperature for 15 minutes, by examining the mixtures in hanging-drops under the microscope. While sometimes the blood of the first person tested is found compatible with that of the patient, often several, even four or five, have to be called before a suitable donor is found.

A Wassermann test of the blood of any donor selected must be made; if arrangements are made a few hours before hand it need not delay the transfusion more than 2 to 3 hours.

Clotting Time. In individuals suspected to be "bleeders," or as a general precaution prior to operative procedures, a simple test of the clotting time of a patient's blood is in order. In the usual apparatus, the clotting time of normal blood varies from 2 to 3 minutes so that in case that of a person, whom it is intended to operate upon, should show a considerable variation from this, one could proceed to correct the condition by calcium therapy or the injection of normal horse serum.

BLOOD CHEMISTRY

Retention of Nitrogenous Waste. In weighing the capacity of diseased kidneys, and therefore the prognosis, an estimation of the increased amount of nitrogenous waste products retained in the blood gives information of value. It should be understood, however, that since the increased heart action usual in connection with true chronic nephritis may, for some time, compensate for declining renal efficiency, the renal disease may be considerably greater than the increased retention found may indicate.

In pregnant women in whom the physician fears an eclamptic attack, an estimation of the non-protein nitrogen of the blood may serve to indicate whether the patient is in danger or not.

Blood Sugar. Normally the percentage of dextrose in human blood is approximately 0.1%. In diabetes this percentage rises above 0.12, exceptionally to 1%. When the blood sugar has risen to 0.15 or 0.20%, glycosuria is usually manifested. Since a constant percentage of over 0.12 may be regarded as harmful and as indicating the presence of diabetes, and as such percentages are not necessarily accompanied by glycosuria, we sometimes find it desirable to estimate the sugar content of the blood in persons suspected to be diabetic, from whose urine we have first eliminated sugar by restriction of carbohydrates. An example of such are the pregnancy cases showing glycosuria, in most of which the blood sugar is found to be normal. Blood sugar estimation is also of great service in judging the effect of treatment in diabetes, since we need to find by test diet the maximum of carbohydrates that the individual can take without causing the blood sugar percentage to rise above normal. As shown above, test of the urine alone cannot determine this.

"Acidosis." Much work has been done and a great deal written in regard to "acidosis," a term frequently used to denote a condition, often supervening in advanced diabetes and chronic kidney disease, or other conditions with deficient oxidation, due to the accumulation of various substances in the blood which reduce its content of alkali.

Methods devised to estimate the reduction of the total alkaline

reserve, as it has been well termed, of the blood, have been various; one extensively used being the estimation of the carbon dioxide content of the air expelled from an individual's lungs—the basis of the proceeding being the fact that the carbon dioxide in the alveolar air and that in the arterial blood is always approximately the same, and that the amount of carbon dioxide in the blood is greatly reduced from normal in proportion to the amount of acid added thereto by the abnormal condition. Deficiencies of this method depend upon technical difficulties and the fact that the amount of carbon dioxide in the blood (normal or abnormal) is greatly affected by the activity of the respiration and circulation, and these in turn by the excitability of the nervous system.

Another test measures the amount of carbon dioxide which a specimen of blood from the patient contains after saturation of the specimen with this gas under fixed conditions. As this test is less affected by conditions difficult to control, it is preferable to the former, when whole blood (not serum) is used.

Estimation of the total acids represented in the urine is another procedure applied to determine the same question, but whether this is a true index of the blood condition has not definitely been determined.

What may be termed a clinical method is, from its simplicity and the fact that it measures at once all the elements in the body which counteract "acidosis," well deserving of preference. This method requires the administration of sodium bicarbonate to a degree that will just render the urine alkaline. About five grams, given within 24 hours, will do this in a normal person, while in conditions of "acidosis" twenty times this amount may be required.

In administering the alkali care must be taken that diarrhoea is not produced, lest part of the bicarbonate swallowed fail of absorption. This test may undoubtedly be claimed the best at present available in routine clinical work.

HUMAN MILK

Reasons for examination of this fluid are too apparent to need much comment and are included under disturbance in the health of the child, not otherwise accounted for, or apparent abnormality of the milk itself. One should always consider, in applying the result of an analysis of a specimen of milk, the total quantity given in 24 hours. In some cases, at least, separate analyses of samples from each mammary gland are desirable. A patient was sent to me the other day for such an examination and while I found that the secretion of one gland was normal in every respect, that of the other (which, upon enquiry, I learned had been the seat of an inflammatory process during a previous lactation) was extremely low in all solid constituents.

TISSUE EXAMINATIONS

Positive decisions upon the nature of a given lesion sometimes rest upon the reputed infallibility of the diagnostician rather than upon what one may see. For example, a section of a cervix was recently submitted to a certain professor of pathology of a medical college in this city for diagnosis. He pronounced the lesion syphili-

tic, and was extremely annoyed when neither positive Wassermann test nor other corroboration could be obtained.

When the diagnostician does not attempt too much, tissue examinations usually give quite satisfactory results. This is particularly true in regard to malignant growths, although it is well recognized that, in many cases, the malignancy of a particular tumor, as judged solely from the microscopic appearance of a section, is uncertain. We have no space for a lengthy consideration of this matter, so will but mention that any piece of tissue submitted for diagnosis had best not be a superficial section, such as is obtained by curretting, but a piece cut from well into the main substance of the diseased tissue. As a pathologist needs all the aid he can obtain in arriving at a reasonable conclusion, the exact place from which every specimen is taken should be stated.

In regard to the action to be taken by the surgeon as a consequence of pathological diagnosis, there is only one thing to say and that is that if the pathological report does not agree with clinical opinion he should have a corroborative examination made. As malignant growths are subject to the greatest variation in extent, rate of growth, etc., it does not follow that failure to recur after restricted operation is proof of the non-malignancy of a particular neoplasm. Attending physicians often depend entirely upon the pathological report on a piece of tissue, which may not even include a typical portion of a malignant growth actually present, or one will ask "Are you certain of your diagnosis in this case; it was a very small affair on the tongue, but since you say it was an epithelioma I think I should remove half the entire organ." Most medical men would not let half their tongue be cut out, epithelioma or no epithelioma, if for no other reason than the statistics of results of such operations.

The gist of the whole matter is that clinical and pathological findings in regard to tissue lesions should always be compared and as, with good judgment, they can usually be made to agree, all treatment should be directed accordingly.

VACCINES

If there is reason to believe that all the susceptible cells of a patient are being stimulated by substances arising from the infecting agents, do not give a vaccine, for there is hardly a chance but that it will tend to swamp, by over-stimulation, the normal reaction of the cells upon whose response cure depends. The reason that greater harm is not often done by indiscriminate vaccine therapy is the common use of stock vaccines in minute doses, and the fact that most patients can stand more bad treatment than we think.

When is there reason to believe that all of a patient's susceptible cells are being stimulated to produce anti-bacterial substances? When the general constitutional symptoms of infectious disease are present: fever, rapid pulse, prostration, etc.

These principles furnish such strong contraindications to the employment of vaccines in the treatment of pneumonia and of typhoid that something more than the mortality tables and personal impressions, quoted by some who have tried them, is required to justify their use. The same is true of all infectious processes with continued constitutional symptoms, especially fever.

An ideal condition for vaccine treatment is presented by chronic articular rheumatism. Here the infectious agent, a streptococcus, is present in small numbers in areas only reached by a much diluted plasma. Before proceeding with a course of vaccine treatment in such a case it is, of course, desirable to remove, if possible, any existing probable primary focus of the infection, such as suppurating teeth, or a chronically inflamed gall bladder or appendix. If this be not done, the supply of bacteria within such entrenchments, and there usually safe from the effects of a course of vaccine treatment which may completely cure the rheumatic symptoms, will be very apt to cause relapses. For, just so soon as the specific power of the blood has fallen from the point to which it was raised by the vaccine, some of the bacterial colonists, that must frequently escape from such foci, will re-seed the susceptible joint tissue and the disease will return.

Except for such cases as would be excluded by the foregoing considerations, any infectious process of chronic type, not amenable to specific surgical or medical procedures, is suitable for treatment with vaccines. It should always be remembered that such treatment relies wholly upon the response to stimulus of the body's cells, and that to get the best response everything which can contribute to improve the general health must be done.

Of course, the greatest field for vaccines of all kinds is in prophylaxis and they should always be used, when available, to protect against any chronically present disease such as typhoid, or against infections which frequently recur in particularly susceptible individuals, such as pneumococcus bronchitis, furunculosis, etc.

No one can think of the foregoing considerations and use a stock vaccine for treatment of a case in which the bacteriological diagnosis is entirely a guess, either his own or that of the manufacturer of the product. Compound stock vaccines (containing a shot-gun charge of many varieties of organisms) are even worse, since by no probable chance could any but the minor portion of the menagerie be allied to the bacteria troubling the patient.

A stock vaccine in prevention of epidemic disease, such as typhoid or influenza, is of course, a different matter. Here we select a number of cultures from typical cases of the malady, add them together and call the mixture "polyvalent." Through use of such a vaccine we can expect to induce immunity to the organisms operative. This use of a stock vaccine to prevent a particular infection is very different to the use of one to treat a disease of which the cause is only guessed at.

SKIN REACTIONS IN DIAGNOSIS

While such tests can be made by the general practitioner, occasions for their employment among one man's clientele may not have been sufficiently frequent to have given him the desirable familiarity with their technique, and particularly with the interpretation of the phenomena elicited, so that he may welcome extension of laboratory diagnostic work to include them.

Tuberculin Test. In cases of active lung disease in which the etiological factor is in doubt (as in those with persistent absence of the tubercle bacillus from the sputum) or in suspected active tuberculosis of any form, a tuberculin skin test (intra-cutaneous injection,

not a Von Pirquet "scratch") is invaluable. Its specificity and certainty in cases such as mentioned may be seen from the following conclusions of some studies of the test recently published from the Saranac Laboratory. 1. There is no cutaneous hypersensitiveness (such as gives a positive tuberculin test) without a focus (tubercle). 2. This hypersensitiveness appears coincident with the establishment of the focus. 3. It diminishes with the healing of the focus. 4. It varies directly with the intensity of the disease, which in its turn is dependent on the virulence of the invading bacillus.

Luetin Test. This test is made in the same way as a tuberculin test, using a killed culture of the treponema pallidum, and is useful as a corroborative of a Wassermann test. The main trouble with it seems to be dependent upon the large percentage of culture medium unavoidably mixed with the organisms used. In connection with this test it was discovered that any patient taking potassium iodine might give a skin reaction to various materials injected therein, irrespective of his diseased condition, so no one while under treatment with this drug should have this test (or any skin test for that matter) applied. In making this, or any other skin test, a control injection should always be made, simultaneously, of culture media without organisms, lest a non-specific individual reaction deceive.

Schick Test. This test, which has been extensively studied by Dr. W. H. Park of the City Department of Health, can be absolutely relied upon to show those immune (and therefore safe under exposure) to diphtheria. It differs from the other tests mentioned in that a bacterial toxin, and not the bacteria, is used. When bacteria are injected, immunes respond by phenomena of inflammation due to irritating proteins freed in the immediate decomposition of the bacterial bodies by specific body reagents, but when a toxin (a specific irritant) is employed, immunity is manifested by lack of reaction since the toxin is neutralized by the individuals antitoxin. In non-immunes, however, the toxin produces an inflammatory reaction.





EDITORIAL



WHAT BECOMES OF THE ARMY MEDICAL CORPS?

AT the outbreak of the War, the United States Army Medical Corps consisted of a few hundred physicians whose military training, especially among those above the grade of captain, had rendered them largely administrative officers and had very greatly reduced their efficiency for the discharge of their purely professional duties, particularly in the specialized branches, such as orthopaedics, nervous diseases and the refinements of cardio vascular diagnosis. While such as had been fortunate enough to be attached to the Army Medical School or the Walter Reed Hospital, had been able to keep themselves well in advance of their subjects, the routine duties of the post surgeon and similar assignments gave but little opportunity for leadership in professional work. Then of necessity, the higher officers—Colonels and Lieutenant-Colonels, were compelled to look after matters of administration so that even though they had achieved conspicuous reputation for work in sanitation, tropical medicine or the like, they were unable either to perpetuate their own success or to turn it to the immediate use of others.

The sudden expansion to nearly twenty thousand made it practically essential that all of those men who understood the departmental routine should be rapidly advanced so as to coordinate the administration of this enormously enlarged medical corps. Now that the War is over and the Army is being rapidly reduced to its peace time footing, what provision will be made to prevent a repetition of the situation which confronted the medical corps two years ago? There lurks in the subconsciousness of many of us the distinct dread that the elaborate endeavors to bring about a League of Nations will prove to be nothing but an offensive and defensive alliance and that the comparatively near future is already grim with the likelihood of more wars.

Will the Army Medical Corps reconstruct itself along the old lines by virtue of the forces of inertia which are so prone to assert themselves at such a time, or has General Ireland been able to impress upon the powers that be the need for a new arrangement of the Medical Corps, an elastic arrangement by virtue of which an Army Medical Service need no longer be a well-defined and specialized form of medicine with the disadvantages as well as the advantages that it formerly possessed, but immediately become part of some broad and well developed scheme whereby the entire profession may be brought to stand back of the Army Medical Corps in a more practical way than is now provided for by the Officers Reserve? It has been clearly demonstrated that the volunteer method has many radical faults and it should never again be necessary to resort to that method for obtaining Army Surgeons. On the other hand the professional

requirements of the Army Surgeon must be kept up to a higher standard than was possible before the War and in this connection one is compelled to pay his respects to the Navy Medical Service to which the same remarks apply equally as well. Just what such a plan should contemplate is by no means an easy matter to indicate. It is a subject for very broad constructive legislation and requires the trained attention of those best fitted to formulate it, the officers of the Medical Corps themselves. This much is certain. The intolerance, the selfconscious superiority and the narrow bureaucratic methods that helped to make the problem a difficult one from the beginning of the War, must not be tolerated. But on the other hand every effort should be made to make the interests of the Corps those of the profession at large and thus to establish a plane upon which to work out a problem which is one of paramount interest.

H. G. W.

SOCIAL HYGIENE AFTER THE WAR.

THE statements by a Y. M. C. A. worker from Egypt that subsequent upon the opening of an amusement park in Cairo, the admission to a certain so-called Dermatological Hospital fell from 22 to 7 per cent, with a total reduction in the number of treatments from 2,000 to 700 a day and that the real reason for the final failure at Gallipoli was the 10,000 ablebodied men who were laid up at a time when they were most needed with venereal diseases, while they do not carry the stamp of authorized official pronouncement, are nevertheless to be accepted as so woefully true as to make one question what consecutive efforts are being made to push along the social hygiene work in our American communities, so as to present an efficient and persistent campaign against the spread of the venereal peril. Figures recently compiled by the American Social Hygiene Association but which are not yet available for general publication, make one shudder at the widespread prevalence of venereal disease and the as yet inadequate means that are taken to combat it. It is rather a characteristic of the American people to enter into things with a whoop and a rush, commence some tremendous undertaking with unlimited enthusiasm and then permit it to get on the best it can while we take up something else. There is a very real tendency to dodge unpleasant responsibilities, a decided desire to leave to someone else the responsibility of attacking unpleasant duties. The average physician is quite ready to turn away from the treatment of venereal disease and it is doubtless in particular that upon the physician lies the responsibility for laxity and carelessness in the handling of this important subject. We hesitate to institute such treatment, as is apt to be distasteful; we appreciate how underpaid such service is and we know only too well how difficult it is to keep the patient up to the requirements of his treatment after the fright and the distress of the early symptoms have subsided. But when we consider that 60 per cent of all operations done upon women are for the relief of the results

of venereal infection and the moral and physical cleanliness of our own boys and girls in no small measure lies within our hands to keep, then we *must* make this the subject of a great nationwide revival and impress each other with our individual duty in this connection. Remembering that it is the casual stranger and not our own patients who call upon us for this care, it is not merely enough to assure him or her that we do not undertake such cases. If we are not qualified for this work then let us see that the sufferer is placed in properly qualified hands. If he cannot afford the continuous treatments requisite to a cure, then let us explain to him with all kindness the advantages of a pay clinic and direct him thither at once; (and see that he gets there). Take the opportunity to discuss the subject in a rational way whenever it arises with any one of our patients and above all talk to your own boys and girls. Mystery and the dodging of earnestly meant questions by the young only serve to excite purient mindedness. Inform yourself as to the real facts which underlie public prostitution and let them be known to others. If it is realized that the bulk of prostitutes are feeble-minded or worse, it would bring about a very different public attitude toward these unfortunate women and much may be done to release them from the clutches of the shameless wretches who live upon their earnings. The subject is not a pleasant one, no and neither is that of sewers, and yet some one has to attend to it. If every one will do his duty, there will be a steady diminution in that appalling tide of humanity which is steadily flowing into the insane asylums and which, if unchecked, will eventually submerge the nation.

H. G. W.



Medical Book News

BOOK REVIEW SUPPLEMENT TO THE *LONG ISLAND MEDICAL JOURNAL*

Edited by JAMES M. WINFIELD, M.D.

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3 PAGES

SURGICAL TREATMENT VOLUME 3 AND INDEX.

SURGICAL TREATMENT. A Practical Treatise on the Therapy of Surgical Diseases for the Use of Practitioners and Students of Surgery. By James Peter Warbasse, M.D. Volume III. 861 pp. 864 Illustrations. Separate Desk Index to Vols. I, II, III. 123 pp. 8vo. Philadelphia and London, W. B. Saunders Company, 1919. Cloth, \$30.00 per set (Three volumes and the Index Volume).

The first two volumes of this book of Warbasse have already received review, see *LONG ISLAND MEDICAL JOURNAL*, November, 1918, and April, 1919. The present volume completes the treatise. It is supplemented by a complete index to the three volumes in a separate, convenient volume of 123 pages. Such an index to so comprehensive and extensive a work is of as great importance to the practical useableness of a book as a knob is to a door. It opens the book for ready reference. To have the Index furnished to us, as Dr. Warbasse has done, as a separate volume easily handled and readily referred to, is a most commendable and attractive novelty in book making.

The preparation of such a comprehensive treatise by a single author is an unusual achievement in these days of cooperative authorship and of the production of systems which are a series of monographs by many authors. It is altogether more noticeable and interesting since the author has been conspicuously an advocate of the "cooperative principle" in other forms of human activities. He has certainly presented a strong demonstration of the fallacy of his own reasoning in other fields in the excellence and value of these three great volumes in which he has embodied the results of his own studies and labors through thirty years of devotion to surgery, for they are the more valuable as they have running through every chapter the same restraining, guiding, conservative, experienced, judicious mind.

We are glad that Dr. Warbasse has given us this book. As we have it we feel as if we could always appeal to "Philip Sober" whenever we find that its author, branching out into other fields, is betrayed into falla-

cious, possibly mischievous tendencies. The personal friends of Dr. Warbasse are aware that in this work they have the "swan song" of the author as a surgeon; that it is a thesis with which he has bidden farewell to surgery, henceforth to devote his time and energies to other lines of effort. It seems a pity that this should be so, but it is doubtless the result of application to his own life of those principles of surgical economics which he has presented in the closing pages of this treatise. According as we have been able to gather the drift of the author's reasoning he would have it that "individualism" is the bane of surgical life, as well as of the social state in general. Truly a revolutionary doctrine in this Western Hemisphere, where all the philosophy of its civilization and of its development to this day has had as its basis the proclamation of the rights of man as an individual to "life, liberty and the pursuit of happiness"!

However this may be we are sorry to lose from the list of practical surgeons the author of so notable a work as that comprised in these three noble volumes. It is to be regretted that at the time when by his age, his undiminished vigor, his accumulated experience and ripeness of judgment he could have filled in the world an important and most useful place in this special field, in which he has shown such aptitude and demonstrated such skill, he should have abandoned a field in which this book shows him to have become a master. In this last volume the field of surgery is swept up together in the subjects remaining from the first two volumes, beginning with *Hernia* and ending with "The Economics of Surgical Treatment," and including, *The Surgery of the Extremities*, that of the *Genito-Urinary Organs*, male and female, and *Plastic Surgery*. This volume preserves the same characteristics as were noted in the earlier ones; clearness of treatment, positiveness of statement, vigorous diction. The work as a whole may be accepted as a faithful mirror and trustworthy guide in the field of surgical treatment as developed to date.

LEWIS S. PILCHER.

MENTAL EXAMINATION METHODS.

HANDBOOK OF MENTAL EXAMINATION METHODS By Shepherd Ivory Franz, Ph.D., M.D., LL. D. Second Edition, Revised and Enlarged. New York, The Macmillan Company, 1919. 193 pp. Illustrated. 8vo. Cloth, \$2.00.

Professor Franz has endeavored in this work to adapt the methods of laboratory psychology to the examination of the insane; in other words, by means of actual tests applied to the patient, to obtain an accurate knowledge of the acuity of his sensations, his comprehension, memory, attention, etc. There is no doubt that these methods do give far more accurate results regarding the workings of the mind than can be obtained by simple questioning of patients and they have demonstrated their great value particularly in the field of normal psychology; while unquestionably their value is equally great in individual cases of abnormal psychology, there are certain practical limitations which will almost inevitably narrow their usefulness in psychiatry. In the first place, examination of patients by these methods takes an unconscionable amount of time; again, in the case of mental patients, it is often extremely difficult to obtain their cooperation in carrying out tests, and furthermore, in those patients who are demented, there is a failure to understand the questions as well as the nature of the tests. The reviewer should not be understood as decrying the value of these methods of examination, but simply as stating objections which he feels must react against their extensive use, at least among men in private practice. The book shows infinite labor, is very well written and is illustrated with many cuts.

F. C. E.

GENITO-URINARY SURGERY.

AN OUTLINE OF GENITO-URINARY SURGERY. By George Gilbert Smith, M.D., F.A.C.S. Phila. & London, W. B. Saunders Company, 1919. 301 pp. Illustrated. Plates. 12mo. Cloth, \$2.75.

This is a readable book containing much information of value to the general practitioner. Dr. Smith's work at the Massachusetts General Hospital for many years has enabled him to speak from personal experience and observation; his careful directions as to technique in Urological procedures and his common sense as to what can be done and what to avoid in the treatment of this class of cases, makes this book a useful one to any practitioner.

STURDIVANT READ.

THE BLIND.

THE BLIND: THEIR CONDITION AND THE WORK BEING DONE FOR THEM IN THE UNITED STATES. By Harry Best, Ph. D. New York, The Macmillan Company, 1919. 763 pp. 12mo. Cloth. \$4.00.

This is a volume of nearly 800 pages, printed upon good paper and with easily legible type.

It is a wonderful work, containing more information on the subject of Blindness, than would seem possible to bring together under one set of covers.

It is rather a difficult work to read, as the author separates his subjects, predicates and objects, by placing adjectives, adverbs and phrases between, so that it is often necessary to read and re-read, before the true value is obtained.

The object of the book is to scientifically inquire into the condition of the blind and his relation to society in the United States, as related to his estate as an economic problem, rather than from the standpoint of sentiment, although ever mindful of his loss, and constantly filled with love and consideration for his very great deprivation.

The general Theme is divided into seven (7) principal headings as follows:

Part I. General Condition of the Blind.

Part II. Blindness and the Possibilities of its Prevention.

Part III. Provision for the Education of the Blind.

Part IV. Intellectual Provision for the Adult Blind.

Part V. Material Provision for the Blind.

Part VI. Organization interested in the Blind.

Part VII. Conclusions with Respect to the Work for the Blind.

And these various parts are subdivided into from five to fifty lesser parts, so that there is no phase of the subjects of the Blind or Blindness, that is not most exhaustively considered and readily found for reference, in fact it is a work of reference, as demonstrated by the innumerable notes and tables, footing practically every page.

There is every evidence that the author spared not himself or the midnight oil in his research and compilation, and certainly an enormous amount of time, pains and thought has been expended in the preparation of the work.

In addition to all before, there is a series of Appendices taking up Alphabets for the Blind, and also Raised Printing. Tables of Schools for Blind Persons, also of Homes for the Sightless, and finally Tables with Respect to Industrial Establishments for the Blind.

After a more or less careful and thorough perusal of the work, I am again compelled to say it is a wonderful storehouse of information and reflects great credit on the author.

NELSON L. NORTH.

RECONSTRUCTION THERAPY.

RECONSTRUCTION THERAPY. By William Rush Dunton, Jr., M. D. Phila. & London, W. B. Saunders Company, 1919. 236 pp. Illustrated. 12mo. Cloth, \$1.50.

Recent events in this country and abroad have created an increasing knowledge of occupational and reconstruction therapy. Every Surgeon, Physician, Nurse and Social Service Worker should be familiar with this type of work, lest they forget that our responsibility does not cease until the patient is of the greatest value to himself and the community of which he is a part. "RECONSTRUCTION THERAPY" is rather misleading as a "title" of the 200 pages of this valuable little volume for they are expended in description more of occupational therapy, as applied to; the insane, the industrial mutilé, the war mutilé and the individual suffering incapacity over long periods of time.

The chapters pertaining to the application of occupational therapy in State, incorporated and general Hospitals are excellent in description of ways of overcoming loss of function of mind and body in our necessarily over-hospitalized patients. These chapters are of particular interest to those doing institutional work of any kind.

Prosthetic appliances developed abroad during the war are of interest to all Surgeons. This chapter is well illustrated, and appliances well described. Chapters on Training courses and work-shops show the practical value of this book. The Bibliography is particularly well arranged and extensive in its scope.

S. P. BARTLEY.

GYNOPLASTIC TECHNOLOGY.

GYNOPLASTIC TECHNOLOGY, with a Chapter on "Sacral Anesthesia." By Arnold Sturmdorf, M.D. Philadelphia, F. A. Davis Company, 1919. 334 pp. Illustrated. Plates. 8vo. Cloth. \$5.00.

What was erratic yesterday is simply radical today and is conventional tomorrow. This book is particularly for the surgeon whether general or gynecic who has contentedly dropped into a rut. The vital matter of the book both as we read it and as we have followed the brilliant clinical work of the author, depends upon his very different ideas as to the majority of cases of pelvic pathology. From endocervicitis evolves most of the lesions, and his teachings, while aimed at prevailing dogmata, are dogmatic and yet are convincing. The operation of tracheloplasty, which may or may not be original, ought to be much more commonly used. His observations of others work on the pelvic floor is much more pessimistic than the reviewer's whose conception is that most gynecologists of any standing today

are using about the same principles and practices that he advocates. The subject of work on the location of the retroverted uterus and the displaced bladder shows that gynecologists have not yet a universal method of caring for the wayward fundus and the wandering bladder, and the safest operator for the patient is the man who has not invented an operation. His general principles are well worth reading. A grave error in the book, and one which will not recommend it to general practitioners is the failure to choose simple words where synonyms are possible. This well-illustrated book every gynecologist should have, and it is a good study for the general surgeon who considers that gynecology is a finished subject of minor importance.

E. B.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

THE PERITONEUM. By Arthur E. Hertzler, M.D., F. A. C. S. 2 volumes. St. Louis, C. V. Mosby Company, 1919. 870 pp. 230 Illustrations. 8vo. Cloth, \$10.00.

SYMPTOMS OF VISCERAL DISEASE. A Study of the Vegetative Nervous System in its Relationship to Clinical Medicine. By Francis Marion Pottenger, A. M., M. D., LL. D., F. A. C. P. St. Louis, C. V. Mosby Company, 1919. 328 pp. Illustrated. Plates. 8vo. Cloth, \$4.00.

GERIATRICS. A Treatise on Senile Conditions, Diseases of Advanced Life and Care of the Aged. By Malford W. Thewlis, M.D. St. Louis, C. V. Mosby Company, 1919. 250 pp. Plates. 8vo. Cloth, \$3.00.

A TEXTBOOK OF CHEMISTRY FOR NURSES. By Fredus N. Peters, A. M., Ph. D. St. Louis, C. V. Mosby Company, 1919. 302 pp. Illustrated. 12mo. Cloth, \$1.75.

THE DON QUIXOTE OF PSYCHIATRY. By Victor Robinson. New York, Historico-Medical Press, 1919. 339 pp. Illustrated. 12mo. Price, \$2.00.

A TEXT-BOOK OF UROLOGY IN MEN, WOMEN AND CHILDREN, including Urinary and Sexual Infections, Urethroscopy and Cystoscopy. By Victor Cox Pedersen, A. M., M. D., F. A. C. S. Phila. & New York, Lea and Febiger, 1919. 991 pp. Illustrated. Plates. 8vo. Cloth, \$7.00.

PULMONARY TUBERCULOSIS. By Maurice Fishberg, M.D. Second Edition, Revised and Enlarged. Phila. & New York, Lea and Febiger, 1919. 744 pp. Illustrated. Plates. 8vo. Cloth, \$6.50.

HYGIENE AND PUBLIC HEALTH. By George M. Price, M.D. Second Edition, Thoroughly Revised. Phila. & New York, Lea and Febiger, 1919. 280 pp. 12mo. Cloth, \$1.50.

RULES FOR RECOVERY FROM PULMONARY TUBERCULOSIS; A LAYMAN'S HANDBOOK OF TREATMENT. By Lawason Brown, M.D. Third Edition, Thoroughly Revised. Phila. & New York, Lea and Febiger, 1919. 192 pp. 12mo. Cloth, \$1.50.

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THE DIAGNOSIS OF RENAL CALCULUS

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THE OBJECT of this paper is to review the symptomatology and diagnosis of stone. Special effort is made to emphasize the points of greatest clinical importance in order to avoid the many pitfalls of diagnosis. The writer does not claim originality of methods.

The X-ray, the cystoscope and the other more improved methods have greatly increased our efficiency in this work. The symptoms of stone are so many and varied that they may closely simulate other diseased conditions. During the past four years the writer has observed that errors have resulted most frequently from lack of thoroughness in examination rather than insufficient knowledge of the subject. Most of us have seen instances where the more obscure type of case has passed through the hands of a number of physicians or hospitals before being accurately diagnosed. Many have been operated upon under a mistaken diagnosis without relief. Cabot found that out of 153 patients 26 had had previous laparotomies.

The symptoms and diagnostic methods are as follows:

Pain: Pain is of varying degrees and types. It may be a severe paroxysm or "colic" with sharp pain radiating along the ureter to the genitalia. The patient shows pallor, prostration and profuse perspiration. The knees are usually drawn up. There may be a continued dull ache, an intermittent or an indefinite pain. The location of pain also varies. It may appear at the costo-vertebral angle, in the upper or lower abdomen, or referred to distant organs. A close study of the history may help in arriving at conclusions. Pain is present in some form in most cases. It has been variously estimated at from 70 to 80 per cent. Braasch found pain present in 98% of a series of 294 cases. In some, pain is entirely absent. We have all heard of the "silent stone" discovered as a result of X-ray or through examination for life insurance.

Pain is said to occur occasionally on the opposite side. Thomson Walker reports two such cases. A number of urologists disagree on this point and believe that bilateral stone is the cause of pain in these instances.

Urinary Changes: Abnormal urine is the most common symptom. There is much evidence to show that while most cases of stone

show pathologic finding, some cases are accompanied with perfectly normal urine. We will all agree that while abnormal urine is the rule, a normal urine does not exclude the possible existence of stone. Braasch reported negative finding in 20% of a large number of cases. Cabot, Bugbee and others reported a considerable percentage of such cases.

Microscopical Analysis: The writer believes that too little attention is paid to this important part of the work. Many urine reports are totally inadequate and unsatisfactory. The habit of depending on commercial laboratories is not altogether safe. Again in hospital laboratories hasty routine analyses fail to give satisfactory results. The work should be done by trained pathologists or those experienced in urinary microscopy. We all agree that reports like the following are of no clinical value: "Few epithelia and white blood cells" or "squamous epithelia and few red and white cells." *The crystalline elements* are studied as to form and number and concretions or gravel if present. Urate, oxalate, phosphate or cystin may appear and suggest the possibility of stone.

Epithelia should also be studied. It is possible to locate the source of a lesion by the predominating type of cells in the sediment. This is especially true of infectious processes; e. g. pyelitis with stone may show a characteristic picture. Those of us who have had the opportunity of working with Dr. Louis Heitzmann of N. Y. are convinced that it is possible to diagnose many cases by the urine examination alone.

Albumen is present in about 80% of cases. It occurs also in some urines where pus and blood cells are entirely absent.

Pyuria is present when pyelitis complicates. While pus cells usually appear in large numbers sooner or later, we are learning that the percentage of stone cases without pus is increasing.

Hematuria is frequent. It occurs in about 1/3 of the cases. Profuse hemorrhage is rare. Microscopical blood is the most frequent. Cases are on record where hematuria was the only symptom. Here it becomes more difficult to exclude the other causes of bleeding.

EXAMINATION: Palpation: Some stones in the lower ureter may be palpated by vagina or rectum. In patients with renal enlargement the organ may be distinctly palpable. Morris reported palpable enlargement in 25% of his cases. However, owing to the deep bed in which the kidney is located it is usually very difficult to obtain satisfactory data in this way. Large stones have been palpated but this is the exception. Localized tenderness is some times present.

Skiagraphy: While this method is known to be one of the most important, it is not reliable in all cases. All workers in urinary surgery have seen or operated upon cases where shadows were present on the plates and where no stone could be found at operation. On the other hand, stones have been removed from kidneys with negative X-ray findings. The writer recalls one case of pain and hematuria where many plates showed the same shadow—no stone could be found at operation.

These cases are not infrequent and for this reason an eminent urologist* has made his dictum: "Never operate for stone in the

* Cabot.

kidney on the unsupported evidence of the Roentgenologist."

However, X-ray is most useful and should be taken in all cases, preferably on both sides. To be of value it should define clearly the iliac crests, the two lower ribs and the bodies of the vertebrae with their lateral spines. It should outline the psoas muscle and usually the lower pole and outer border of the kidney itself. We are too often prone to discard the possibility of stone on the evidence of one or two plates. We should be on our guard for this particularly in stout people where clearly defined plates are more difficult to obtain. The compression diaphragm is of value. The preparation and entire management of the patient should be left to the discretion and judgment of the radiographer. The proportion of radiographic failures is not accurately known—one authority estimates it at from 5 to 15%. When we include ureteral stones the percentage is greater. The uric acid type is said to give the poorest shadows. The number, size and location of stones may also be demonstrated. Thomson Walker uses a unique radiographic catheter which is alternately opaque and translucent to the ray to measure the exact size of stones. When taken in conjunction with other methods X-ray is indispensable.

Cystoscopy: should be done in all cases. It is only in this manner that complete information can be obtained. The interior of the bladder is inspected, also the ureteral orifices, the latter catheterized and separate renal urines obtained. At the same sitting functional comparative tests are taken from both, using either phenolsulphonephthalein or indigo-carmin. The former is the most popular. It is frequently used as a time test in comparing one kidney with its opposite fellow. By using the colorimeter the actual percentage of the drug is measured. One c. c. may be injected intramuscularly or subcutaneously when it appears normally in the urine in five to nine minutes. If employed intravenously it returns in three to four minutes. The results obtained in this manner in surgically diseased kidneys is often striking; for example the drug may be eliminated on the sound side in 8 minutes and on the diseased side in from 20 to 30 minutes or longer. Dr. E. L. Keyes has pointed out that urethral, prostatic or ureteral reflex from instrumentation can cause delay in function in some cases. I believe most urologists do not find this an objection. Phenolsulphonephthalein affords the most reliable indicator in surgical diseases of the kidney. This does not apply to medical conditions.

Indigo-carmin is also used extensively. 10 c. c. of a saturated solution may be injected into the muscle when it usually takes 12 to 15 minutes to appear. One c. c. ampoule preparations may also be used. Dr. H. D. Furniss uses it intravenously in which case it is recovered on the normal side in six minutes. In cases where there is difficulty in locating the ureteral orifices indigo-carmin will show their position and characteristics.

We must not lose sight of the fact that many cases of stone will show normal renal function. The delay is usually in proportion to the amount of destruction of tissue. The functional urea test is also of value. Catheterization shows presence or absence of obstruction and if present at what location. X-ray catheters outline the course of the ureters and help to exclude shadows due to phleboliths, calcified glands or other conditions. In infected cases pyelograms indicate presence or absence of pyonephrosis by the

size and outline of the pelvis. Sacculations and dilatations of the ureters are found in like manner.

Pyelography was begun by Voelker in 1906. Since then it has been greatly developed. Dr. Braasch has contributed a most beautiful set of pictures demonstrating diseased changes. It is entirely possible in many cases to obtain sufficient data at one cystoscopic session with the X-ray and using opaque catheters. It has been our effort on the urologic service at Kings County Hospital to minimize discomfort and loss of time in this way.

The solutions chiefly used for shadows are thorium, silver iodide or sodium bromide. Argyrol has been used with some success. Collargol has been largely abandoned on account of the dangers resulting from infiltrated kidney.

The wax tipped catheter: In conjunction with cystoscopy this method deserves special mention. The use of wax for this purpose has long been known. As implied it depends upon the principle of obtaining scratch marks upon the wax coming in contact with stone. Dr. Howard Kelly has used it with great success in the female through his endoscope tube. He has repeatedly obtained evidence on the tip in cases where stone was found at operation.

A few years ago Dr. Burton Harris perfected its use in male cases as follows: A bead of wax on a long whalebone filiform was passed into the bladder and the cystoscope passed over it after the manner of a tunneled sound. With a little care in manipulation the tip could be passed uninjured up the ureter for exploration. The type of case in which the use of wax is especially helpful is in the presence of partial or complete ureteral obstruction or in lodgement of stone at the uretero-pelvic junction. It is the small ureteral stone which may give positive evidence on wax and at the same time give no shadow on the X-ray.

DIFFERENTIAL DIAGNOSIS: It is impossible to give a clear, detailed study of this subject in anything short of volumes, but we simply mention the following:

Gastric and duodenal ulcer: Many a stone presents gastro-intestinal symptoms—Acute or chronic digestive complaints, eructations of gas, pain in the upper abdomen, often nausea or vomiting. These are reflex and said to be due to the connection between the nerves of the renal, spermatic and ovarian plexuses with these of the gastric and splanchnic.

Diseased Conditions of the Colon: Pains in the back or upper abdomen are frequently due to the colon from kinks or stasis. Bismuth pictures may show that the colon is the source of the trouble.

Gall Stones: Gall stones may give similar symptoms. At times shadows of gall stones are mistaken for renal stones. Differentiation should not be difficult to the radiographer.

Acute Pyelitis without stone: Pain is usually less severe. However, stone may be found in the X-ray in cases where pyelitis was thought to be the only lesion. The writer saw a case where the stone passed into the bladder and was voided.

Appendicitis: We are all familiar with cases which have appendectomies performed with no relief. Perhaps the urologist sees a larger proportion of these than others.

Oxaluria: A condition where large amounts of oxalate crystals are present in the urine. Severe colic and even hematuria may result without actual stone formation. This is not uncommon and

usually subsides under proper dietetic and medicinal measures.

Cerebro-spinal Syphilis: Cases with severe lightning pains and even gastric crises have been mistaken for stone. Careful examination should clear up the possibility of error.

Non-calculous Pyonephrosis and Hydronephrosis An application of the methods given should avoid error.

Tuberculosis of the Kidney: Microscopic tests and guinea-pig inoculation should recover the bacillus. Decolorizing the stained smear over night eliminates all other acid fast bacilli. The presence of apparently sterile pus in ordinary stains is strong presumptive evidence of tuberculosis. However, stone may occasionally complicate a tubercular kidney. Great difficulty is often experienced in catheterizing ureters in advanced tuberculosis owing to marked contraction of the bladder.

Moveable Kidney: Moveable kidney with kinking of the ureter causes the well-known Dietl's crisis. Diagnosis is usually not difficult.

Essential Hematuria: Essential hematuria has probably provoked many operations for stone. It is a question whether some of these are not due to varices of the renal papillae described by Fenwick, Pilcher and others.

Stricture of the Ureter: Stricture of the ureter may be very difficult to differentiate. It may be congenital or acquired, unilateral or bilateral. Pyelography is of great value in these cases.

Osteo Arthritis and Caries of the Vertebrae: These have been mentioned.

Sacro-iliac Subluxation: This condition is mentioned. It should be easy to recognize.

Hysteria:

Diseased Conditions of the Female Organs by ureteral compression have been the source of confusing symptoms.

Renal Tumors: Pain and hematuria are the two chief points of similarity. Diagnosis should not be difficult.

Herpes Zoster: The writer recalls one case at the Polhemus clinic referred by another department where the patient later developed a typical herpetic eruption along the course of the lower intercostal nerves.

Malaria: A chill with pyelitis in case of stone has been suspicioned as malaria. On the other hand malarial hematuria may lead one to suspect stone.

Aberrant Renal Artery while rare may also give a picture similar to stone.

Nephritis Dolorosa: Nephritis dolorosa is an old term designating pain in chronic interstitial nephritis. We know that pain does not accompany chronic nephritis unless it may be present in the lumbar muscles in late cases.

Bladder Diseases: Stone, tumor or cystitis may give similar symptoms. Cystoscopy demonstrates the lesion as a local one.

An interesting example of what may happen in cases of stone may be cited in the following:

March, 1919—*Patient*—maiden lady 46 years of age.

Family History—Negative.

Previous Personal—Bowels always constipated, taking cathartics all the time.

Appetite—As a rule, poor.

Always troubled with indigestion and gas. At times has marked eructations and abdominal distention.

Condition otherwise negative as to present complaint.

Present Trouble—began five years ago with severe abdominal pain. With the first attack she was operated upon for appendicitis by a prominent surgeon with no relief from symptoms. The pain comes on suddenly when she is feeling well and is so severe that she rolls on the bed with agony and is not relieved until a hypo of morphine is given. After resting quietly for a couple of days she recovers completely. At first these attacks occurred about every five months but latterly appear about every two months. Each attack is accompanied by nausea and vomiting. She has never noticed blood in the urine or vomitus. The stools are never black. Jaundice has never appeared. The frequency of urination is not increased.

Physical Examination: Moderate tenderness is present in the right hypochondriac and lumbar regions. The lower pole of the kidney is distinctly palpable but not enlarged.

Cystoscopy: Bladder normal. Ureter orifices normal. No. 5F catheters pass freely to both kidneys. Phenolsulphonephthalein appears 10 minutes after injection from both sides. Normal intermittent drip present.

Urinalysis: Left renal urine contains no albumen nor abnormal microscopic findings. The right, however, shows a large trace of albumen and abundant uric acid crystals and concretions. No casts are seen.

X-ray Examination: By Dr. I. P. Heymann shows a clearly defined shadow about a half inch in diameter in the centre of the pelvic area. Several plates taken identify it as renal calculus. The entire kidney shadow is clearly outlined.

At operation three weeks later the writer removed the stone by simple pyelotomy. The kidney was apparently normal, the pelvis somewhat congested. After thorough exploration of the kidney, the calyces and the entire ureter, the pelvis was closed and the wound drained in the usual manner.

The interesting part of this case is the patient's experience. As stated she had an appendectomy without relief. She had passed through the hands of a number of men who did not suspect calculus. Two physicians suspected gall stones but for some reason the case was never followed up and skiagraphs taken. Another well known surgeon had the patient on a strict diet for albuminuria for eleven months. At the end of this period she was still advised to continue with the diet because of the persistence of albumen. She refused to continue this treatment. At the hands of others she received treatment for varied gastro-intestinal conditions.

Since recovery from the operation repeated urinalyses fail to reveal the presence of albumen or abnormal microscopic sediments. Relief from pain is complete and the digestive function excellent

LETHARGIC ENCEPHALITIS.

Report of a Suggestive Case.

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INTRODUCTION

MEDICAL Literature for the last few months has been discussing at great length Lethargic Encephalitis as a possible post Influenzal complication, and there has been a natural tendency to consider all cases that present a drowsy, sleepy, lethargic appearance as L. E. which condition is exceedingly rare. In many of our common cerebral diseases we have stupor and lethargy as a most predominating symptom, and only after a most exhaustive study in ruling out these ordinary conditions can we consider L. E. In one of the cases I intend to cite the patient presented a most classical and typical picture simulating in every detail L. E. and only after a thorough study of his previous history we were forced to alter our original impression and place it among the relatively common diseases.

The second case that I am to discuss was admitted to the hospital as L. E. and presented symptoms that justified such a diagnosis but when the case was worked up more thoroughly this also fell into the class of a well known disease.

The third case to be reported presents according to our ideas a true picture of L. E. and we arrived at this diagnosis only after all our labors both clinically and in the Laboratory to disprove it proved negative.

Case No. 1

A patient, negro 29 years of age, Longshoreman by occupation was admitted to The Brooklyn Hospital, March 17th with a previous history of six weeks before in one of the City Hospitals suffering from influenza. Four weeks later was discharged cured, went home feeling well. One week after his discharge from a City Hospital, he complained of feeling drowsy and tired. The next day he went to bed and remained apparently in a sleepy, drowsy condition for four days. On the fifth day an ambulance was called and he was brought to the hospital, his drowsy condition still persisting. There is no history of any blow or injury to the head. Upon admission to the hospital patient was extremely drowsy and sleepy, could answer questions only upon being shaken severely. Answers were muddled and more or less unintelligible. His bladder was markedly distended and reached to the umbilicus. Patient remained asleep throughout his entire first day at the hospital, it being necessary to catheterize him every eight hours. The following morning he seemed very bright, would answer questions and seemed to have awakened from the sleepy lethargic state of the previous five days. He took nourishment himself for the first time, and during the following two days was normal in every respect. The next morning (March 20th) with no evident warning went into an unconscious condition and was seized with epileptiform convulsions which were extremely severe and persisted throughout

most of the day. Toward evening they became rather mild, patient remaining unconscious and his general condition growing progressively worse until about midnight when he died. Temperature during sickness ranged between 99 and 101 degrees.

Physical Examination. Heart and Lungs negative. Knee jerks upon admission slightly exaggerated. During his period of well being in the hospital they were absent and during the epileptiform convulsions and up to his time of death markedly exaggerated. Blood picture and urine normal. Spinal fluid withdrawn under great pressure and the laboratory findings showed a 4 plus Wassermann.

A *Summary* of the above shows the following points to be the most salient:

The lethargic state of patient, the convulsive seizures, the period of well being, removal of spinal fluid under pressure showed a 4 plus Wassermann.

Autopsy Findings. Autopsy findings showed brain exceedingly wet, lateral ventricles markedly distended with an opalescent fluid. Meningeal coverings throughout were everywhere moist and edematous. Markings of the brain were normal and the most impressive thing in the brain picture was the marked diffused moisture and edema seen throughout all the meningeal coverings and brain substance.

Case No. 2

The patient was admitted to The Brooklyn Hospital March 7th, complaining of having a cold, coryza, pains and aches all over the body and a severe headache. One week previous to admission had a very bad head cold, crampy pains in the stomach, and a frontal headache that did not radiate and had been more or less persistent for the last two and one-half months but of late seemed to have become more intense. Last December had a grippy attack that was somewhat similar but not near as intense as the present attack. At that time was treated and condition diagnosed as influenza. Since then had had numerous night sweats, persistent productive cough, no evident hemoptyses. Patient upon arrival at the hospital presented symptoms that simulated very closely influenza but after a stay of one week his condition presented an entirely different picture, laying in bed in a drowsy, sleepy lethargic state, answering questions in a rather unintelligible manner, and seemed extremely uninterested in the things going on about him. During the second week the lethargic appearance of the patient became much more evident and apparently he seemed to be growing progressively worse, and going into a more comatose state.

Physical examination. Heart was negative. Lungs showed many rales with a normal percussion note heard every place except some slight dullness of the right upper lobe. During his first week neurological findings were negative except for a Kernig that was not definitely positive, but enough to cause some suspicion. His neck was very stiff and spastic during his first week in the hospital. During his second week the slight findings of positive Kernig disappeared. The rigidity of the neck disappeared and head could be well flexed. Ptosis of the right lid, which was at first scarcely noticeable, became daily more marked. Pupils were at times irregular, nystagmus present, ophthalmoplegia became evident as condition

went on, facial paralysis developed during the middle and terminal week. Knee jerks which were normal upon admission became gradually diminished until 4 days before death when they were totally absent.

A polyuria developed at this time with an average output of about 2 liters per day which necessitated catheterization every eight hours. During the latter part of this week the lethargic and comatose state of the patient became much more pronounced and the general condition of the patient seemed to be growing progressively worse until his death at the end of the week. His temperature ran a septic course averaging between 100 and 103 until 12 hours before death when it took a subnormal remission and went to 96. Blood pressure slightly below normal. His pulse and respiration were slightly accelerated. Urine and blood picture practically normal, 2 plus Wassermann found. After numerous attempts spinal fluid was finally obtained that was not under pressure and about 10 c. c. of clear spinal fluid could be obtained, which upon standing for 15 minutes showed a pronounced nebula. After a most exhaustive search no meningitic coccus or tubercular organisms could be demonstrated.

In the summary of the above the salient facts are; the night sweats, persistent cough, pronounced lethargic drowsy condition of patient and persistent headache, stiff neck that ultimately subsided. Negative spinal fluid for T. B. or Meningitic organism. The characteristic triad of lethargy, ocular paralysis, fever, which is supposedly exceedingly suggestive of L. E.

Autopsy findings. Cortex of the brain was scattered with many tubercles. Base of the brain was also studded with countless tubercles. The ventricles of the brain were markedly distended and a few scattered tubercles could be found on the wall of the lateral ventricles. The lungs showed a diffuse miliary tuberculosis, probably the original focus. Heart, spleen, kidneys and intestines all showed numerous tubercles. Diagnosis, Tubercular Meningitis.

Case No. 3

The patient, a male 17 years of age, white, was admitted to The Brooklyn Hospital on the 15th of February in a coma. Last fall patient had an attack of influenza from which he apparently recovered. During the week preceding his admission patient noticed that he would get tired very easily and felt rather weak and sleepy. The latter part of this week he was forced to go to bed and went into a comatose state in which condition he arrived at the hospital. This condition persisted for the next four days in the hospital apparently unchanged.

The fifth day patient apparently awoke from his lethargic state and was absolutely normal in every respect conversing in a very intelligent manner and had no recollection of his stay in the hospital, but could recall only the onset of the condition when he felt sleepy, drowsy and tired.

Physical Examination. Heart and Lungs were negative. Pupils dilated; react to light and accommodation. Kernig was absent and no stiff neck. No evident paralysis in any part of the body. Patellar reflexes showed the right slightly more exaggerated than the left. Other neurological tests negative. Boy lays in bed appar-

ently in a deep slumber with a certain expressionless masked face that is somewhat impressive. Temperature varied between 97—100. Pulse throughout most of the course was 55. Blood pressure was 80 on the diast. and 110 on the systole. Respiration was normal.

Laboratory Findings. 10 c. c. of a clear spinal fluid removed under no evident pressure. Laboratory findings were negative. Urinary and blood findings negative.

Summary. Evidently a post influenza complication, gradually increasing loss of consciousness which took several days, absence of symptom simulating meningeal involvement, irregular temperature which was never very high, slight pulse and complete recovery of patient with no evident brain changes.

CONCLUSION

In cerebral lues we can have simulated almost any form of brain or spinal cord disease, but in brain syphilis special emphasis has been laid upon a type that gives as one of its most important symptoms convulsions and epileptiform seizures and also a period of lethargy or pronounced drowsiness and it was undoubtedly this type of case that we were dealing with.

In the tubercular meningitis case one of the cardinal neurological findings is the dull disinterested attitude of the patient that became more pronounced as the disease progressed and very often a patient goes into a stage of complete unconsciousness.

To attempt to explain the cause of drowsiness in L. E. would be to discuss a most debatable point, but in our observation of it we have seen that in a large percentage of cases of influenza pneumonia, after the crises, and during the convalescence the patients have almost invariably gone into a slumber that would persist for days. This slumber in different patients has been of all grades, some presenting just a drowsy attitude while others sleep continuously. In those patients that had a very severe attack the lethargy seemed much more pronounced.

In influenza pneumonia the body tissues are subjected to a most severe and exhaustive seizure in combating the toxins, and the period of lethargy that follows may be a time naturally arranged so that the bodily waste may be replaced. As yet no specific organisms have been demonstrated as being the etiological factor in the causation of this condition.

PRACTICAL VALUE OF BLOOD CHEMISTRY*

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Abstract: The practical value of functional kidney tests and the value, as regards diagnosis, prognosis and treatment, of blood chemistry in cases of diabetes, nephritis and operative risk.

BEFORE any new method of diagnosis or treatment is generally adopted by the medical profession it is necessary to prove its

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* Read before the Society of Internal Medicine on May 23, 1919.

value as a supplement to, or a substitute for, the older and better tried methods. While the methods of blood chemistry can hardly be called new in these days of progressive medicine, there are still many physicians who are skeptical as to their value and feel that the information gained thereby is hardly sufficient to warrant the extra expense to the patient.

It is, perhaps, worth while therefore, to find out to what extent the knowledge of the patient's blood chemistry is of value as regards diagnosis, prognosis and treatment.

There is an extensive literature on the fallibility of urine analysis in the diagnosis of kidney lesions. Those clinicians and pathologists who have had the opportunity of studying many autopsies in relation to the ante-mortem diagnosis will readily admit that a diagnosis of kidney conditions based on clinical symptoms plus only the ordinary urine examination is incorrect in a large percentage of cases. With the advent of the functional kidney tests, it became possible to make more accurate diagnosis in these cases.

Of the functional kidney tests the phenol-sulphone-phthalein is perhaps the most practicable for other than hospital use, inasmuch as it is simple of application and can easily be carried out in the physician's own office. Ampules containing 6 mgr. phenol-sulphone-phthalein dissolved in 1 cc. of sterile salt solution can be obtained. One-half hour before the test is to be used the patient should drink a full glass of water in order to insure a free flow of urine. Just before the injection is given the patient should either be catheterized or empty his own bladder. The contents of one ampule are then injected intramuscularly, and at the end of the first and second hours following the injection the patient should urinate again, using two different receptacles. To estimate the per cent of phenol-sulphone-phthalein take each sample of urine in turn, dilute to about 200 cc and add enough sodium hydrate solution to make it strongly alkaline (usually about 10 cc of a 5% solution) then dilute up to 1,000 cc with distilled water. Mix thoroughly and then filter a small portion of it for use in a colorimeter. Any standard colorimeter can be used. For ordinary use a Dunning Colorimeter costing \$5.00 is the cheapest and most compact. The urine to be tested is placed in an open ampule and is compared in color with other ampules containing solutions varying in color according to the percentage of phenol-sulphone-phthalein contained therein. The percentage of the sulphone-phthalein in the urine which is being tested is read off directly from the ampule which it most nearly matches in color. The average normal percentage for the excretion of phenol-sulphone-phthalein is 50% for the first hour and 30-35% for the second hour. If in two hours there is an excretion of 40% or less the kidneys should be considered defective.

Mosenthal has devised a functional kidney test which, though decidedly more elaborate is very satisfactory. The test can be carried out at the patient's home but is more apt to be accurate when done in the hospital. It consists of a study of specific gravity, nitrogen, salt and water excretion on specimens passed every two hours during the day and the twelve hour night urine, during 24 hours when the patient is on a standard renal diet. Normal urine shows considerable variation in the specific gravity

readings, equal balance of salt, nitrogen and water, and a quantity of night urine usually under 400 cc. Chronic interstitial nephritis shows a fixed low specific gravity, diminished salt and nitrogen excretion, polyuria and increased volume at night. Chronic parenchymatous nephritis shows a diminished salt and normal nitrogen excretion.

Later on, the perfecting of a simplified technique in making chemical blood examination greatly stimulated the interest in the problem of body metabolism, not only in renal conditions, but in other diseases as well.

In order to avoid the variation in amount of the waste products in the blood following meals, it is better to get the blood before breakfast, or if that is not feasible immediately before one of the other meals. The blood should be taken from a vein by means of a syringe or other suction apparatus following the method of procedure in obtaining blood for a Wassermann test. It should be immediately poured into a test tube or bottle containing a few drops of saturated potassium oxalate solution or a few of the crystals, and well mixed, so as to prevent coagulation. It should then be sent immediately to the laboratory, especially if it is to be examined for sugar or CO_2 combining power. If the blood is to be examined for uric acid, the patient should be on a purin free diet for at least two days preceding the test, and if for urea, he should be on a low protein diet for the same length of time. The following amounts of blood are necessary:

Urea and non protein nitrogen.....	15 cc.
Uric acid	20 cc.
Sugar and creatinine.....	10 cc.
All the above in one specimen.....	30 cc.

Diabetes and nephritis are the two diseases in which a study of the patient's blood chemistry is of perhaps the greatest value. In diseases affecting general metabolism, it is of course, the toxic or waste product retained in the blood, which cause the clinical symptoms, and it is chiefly to a quantitative study of these products, either alone or in relation to the amount excreted, which we must look for as an index of the patient's condition or of the progress of his disease.

Diabetes presents a particularly interesting field for study, and a study of the patient's blood chemistry in this disease will yield valuable information to the clinician. Renal diabetes is of course easily diagnosed by the fact that the glycosuria is not accompanied by a hyperglycemia. As this is a comparatively rare condition, it is not worth while to spend much time to-night in the consideration of this disease.

The amount of sugar normally found in the blood varies between 80 to 120 mgr. per 100 cc or 0.08% to 0.12%. The threshold point at which the kidney acting somewhat as a safety valve, begins to excrete sugar generally about 170 to 180 mgr. There can be therefore, a definite hyperglycemia without any glycosuria, or with merely a transient glycosuria occurring one to two hours after a meal when the amount of sugar in the blood temporarily exceeds the threshold point. This may occur in incipient or potential diabetic cases in which the proper preventive treatment might check the progress of the disease. It is also found in patients whose urine became sugar free following treatment, but

who still show a hyperglycemia. As the disease advances the permeability of the kidney to sugar is decreased, so that the threshold point becomes gradually higher and in advanced cases the blood sugar may have a concentration of 300 to 400 mgr. per 100 cc. without producing any glycosuria. Patients, when first seen by the physician in this stage of the disease are easily mistaken for cases of nephritis. The presence of acidosis, in diabetes as well as in other diseases, can be ascertained with considerable accuracy by an examination of the blood. The finding of acetone bodies in the urine is evidence of an acidosis, but, as Van Slyke has pointed out, the presence of these bodies in the urine is dependent upon renal integrity, so that the test applied directly to the blood is of considerably more value as an index to the patient's condition. The CO_2 combining power of the blood plasma, as tested by the Van Slyke apparatus, is normally from 50 to 70 volumes per 100 cc of blood. Values below 45 are indicative of beginning acidosis.

A large amount of work upon the chemistry of the blood in nephritic cases has been done by various research workers, notably Myers and Fine, MacLean, Folin and Denis. In this connection attention has been focused chiefly upon the non-protein nitrogenous elements of the blood. The presence in the blood of these substances in increased quantities is due not to an increased production in the body but to a decreased excretion by the kidneys. In normal individuals, the amount of nitrogen taken into the body does not affect materially the concentration of non-protein nitrogen in the blood, as any excess is readily thrown off by the kidneys. In nephritic patients, however, an increase in nitrogenous intake is followed by a slow increase of nitrogen in the blood until that point is reached where the increased tension causes a larger excretion on the part of the kidneys. This determines the level of nitrogen equilibrium, which will remain constant at this higher point, so long as the nitrogen intake remains the same. In other words, the permeability of the kidneys to nitrogen products is decreased so that of all patients on a similar diet, those patients having any kidney impairment will show a higher blood nitrogen. The normal non-protein nitrogen contents of the blood is as follows:

Total non-protein nitrogen 25-30 mgr. per 100 cc of blood

Urea nitrogen 12-15 mgr. per 100 cc.

(Urea 24-30 mgr. per 100 cc.)

Uric acid 2-3 mgr. per 100 cc.

Creatinine 1-2 mgr. per 100 cc.

Ammonia nitrogen 0.08 mgr. per 100 cc.

Hospital patients usually average somewhat higher in urea nitrogen and total non-protein nitrogen, probably because impairment of the kidneys to a greater or lesser extent is fairly general in this class of patients.

Of the various nitrogenous constituents of the blood the ammonia nitrogen and the creatinine are the most easily excreted by the kidney. Urea nitrogen is less easily excreted and uric acid is the most difficult to excrete. Consequently, uric acid is the first product to accumulate in the blood, and one of the earliest signs of an interstitial nephritis is an increase in the uric acid content of the blood. Urea is the second product to increase in the

blood, whereas, creatinine does not usually increase until the kidney impairment is well advanced. As Myers and Fine have pointed out, creatinine is of endogenous origin and is constantly present in about the same quantity at all times in healthy adults. We have therefore, a valuable index to the prognosis of the disease in the quantity of creatinine present in the blood, and cases showing a blood creatinine of over 5 mgr. have almost invariably a fatal outcome within a short period of time. This rule does not hold good in very acute cases, such as those due to arsenic and bichloride poisoning. In these cases the blood sometimes shows very high values of urea and creatinine though the patient ultimately recovers.

In December, 1917, patient S. P. entered the Brooklyn Hospital two hours after taking two tablets of bichloride of mercury. The urine was diminished in quantity and showed albumen but no casts. The blood, nine days after admission showed urea 197 mgr., creatinine 17.8 mgr., sugar 100 mgr. per 100 cc of blood, CO_2 combining power 38.2. Five days later the blood showed urea 82.17 mgr. and creatinine 4.6 mgr. Ten days later the urea was 38 mgr., and creatinine 0.9 mgr., and ten days later still, the patient was discharged completely recovered.

Every other patient entering the hospital in the last two years, who has shown a blood creatinine of over 5 mgr. has either died in the hospital or been discharged unimproved and contrary to the advice of the attending physician.

One of the chief uses of blood analysis is in the decision regarding operative risk, especially prostatic cases. After considerable experience in this class of cases it has been found that the patient showing a urea nitrogen under 20 mgr. (urea under 40) is a safe operative risk, whereas it is dangerous to operate, when the urea nitrogen is over 30.

Other tests including the lipoids, salts, diastatic activity, etc., are at present under investigation, but are not of much practical value at present.

A brilliant diagnosis can sometimes be made by the use of blood chemistry in puzzling cases of coma. It is pre-eminently, however, in cases of diabetes, acidosis, nephritis and operative risk that blood chemistry is of the greatest practical value as regards diagnosis, prognosis and treatment. As the number of these cases is very large and apparently on the increase, any method which would lead to earlier or more accurate diagnosis, or will furnish a more delicate guide to treatment should be used as widely as possible.

THE EAR IN HEAD INJURIES

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HEMORRHAGE from the ear has always been recognized as a serious symptom, indicating fracture of the base. Homer's heroes when clouted upon the head with a lusty bludgeon fell to the sand and died with blood streaming from the ears and nose. Hippocrates mentions it as an important sign and Ambrose Pare makes note of this symptom.

Occasionally, we are told that blood may come from an ear after a fall or injury and the cause be a rupture of the membrana tympani, only. This has not been accentuated fortunately because most cases with ear hemorrhage are genuine basal fractures and I have seen just two cases of hemorrhage from the ear due to lacerated tympanic membrane only; all the others belong in the more serious class. The first of the cases of lacerated membrana tympani due to injury was that of a small boy, with marked catarrhal changes in his ears, and who is partially deaf. He stumbled and fell and struck the side of his head in a pile of sand. There was decidedly less blood from his ear than escapes from the usual fracture case but the amount was more than one might expect from a laceration of the membrana tympani. The laceration was plainly visible, posterior to the malleus, about three-eighths of an inch long. The healing was prompt but blood diffused itself between the layers of the membrane and the ecchymosis and changes taking place were much like those after a fracture. A month passed before the blood stain had disappeared.

The second case was also a small boy about ten years of age. While riding a bicycle, he was in collision with an auto and was thrown some distance. He was stunned but did not lose consciousness and blood came from the ear as in the previous case. This boy had had much catarrhal and suppurative ear trouble and his membrana were thick and retracted and the laceration was plainly to be seen and there was some suppuration following the accident.

The catarrhal changes were common to each case and this point has been noted in other cases reported from time to time. A fall on the side of the head seems much more likely to produce a rupture of the drum if its elasticity is impaired. The amount of blood is another point to be considered but need not be dwelt upon too strongly as careful inspection will do more to settle the question than anything else. Neither of these cases were knocked unconscious. The lesson to be drawn then is that an inspection of the ear is in order whenever there is a hemorrhage from the ear but the odds are much against it being a lacerated drum, only. If one can put forward just two cases on one side of the question; there are not many of that kind to be found.

A few years ago, considerable effort was made to impress the importance of keeping the bleeding ear clean by avoiding many of the well intentioned but useless efforts. The simplest and best thing is to clean the outside ear and keep a plug of sterile cotton in the meatus. I hope to-night to show that much can be learned by careful inspection of the bleeding ear. To the surprise of many, one can state that not infrequently you can obtain great aid in diagnosis by locating the line of fracture as it crosses the inner portion of the aural canal, blood or serous fluid can be demonstrated as coming from certain parts of the ear and if one will watch the muscles supplied by the seventh nerve, a most important diagnostic aid may be supplied. Most of us feel that paralysis or paresis of the sixth nerve is the most common nerve sign of basal fracture. This may be true, but the most common nerve sign of fracture of the base involving the ear is paresis or paralysis of the seventh nerve. Even with this information, we are at fault and expect the symptom to show itself at

the time of the fracture. The symptom not infrequently does not begin until the third day or later; and may never be more than a paresis, showing only as a delayed action of the orbicularis palpebrarum on the affected side and lowering of muscle power demonstrated by holding both upper lids up and asking the patient to close the eyes or to try to close them while you hold them, thus gauging the relative power applied on each side at the same time.

Remember the seventh nerve closes the eye-lids and that the third nerve opens them. Paralysis of the seventh gives an open eye but if the third nerve is affected, we have ptosis.

It may be not unprofitable to run over a group of cases with blood from the ear after accidents, taking them just as they come. The first one of this group was hit on the side of the head by a seltzer bottle. He was operated upon for depressed fracture and the line led down into the base where the surgeon could not go. Two days after the accident, the posterior canal wall is very much swollen so the view of the drum is not of value. Blood can be aspirated from a point below and behind but any knowledge of the drum is not obtainable. A week later, the posterior wall is ecchymotic as is the drum posteriorly. Very evidently the line of fractures crossed the canal into the middle ear at the angle of junction of drum and posterior canal wall. No seventh nerve symptoms in this case.

The next case was the result of a fall backward while carrying a tie, distance of fall six feet. Patient semi-comatose. Right ear: Lower canal wall lacerated, continuous discharge of bloody serum and wall so swollen that drum is obscured up to middle. Left ear: Dry, no laceration but drum is ecchymotic. Examination made one week after injury.

Two weeks after injury, both ears are dry. The canal wall of the bad ear (right), is ecchymotic from drum to meatus, below and anteriorly. Drum ecchymotic below. Patient dull. No seventh nerve symptoms.

The next case was a driver who was thrown from a wagon and brought in comatose with sudden large gushing of blood from ear (right). There is no laceration visible and the blood comes from the extreme anterior portion of the external ear close to the drum and the opening cannot be seen because of the ampulla like expansion which is a constant feature there. This is a favorite place for blood or serum to enter the external ear, the fracture line passing across the middle ear and just reaching the external ear high up and anteriorly where the eye cannot reach. The amount of blood which would suddenly well up from this ear was amazing and cessation was indeed a relief. There would be no bleeding for some time when another gush would come in such quantity that one would with reason fear exsanguination. Our conclusion was that the fracture line crossed the inferior petrosal or cavernous sinus, lacerating it and allowing escape of blood into the extra-dural spaces until pressure became great enough to force through the fracture into the external ear. The patient was operated at once and the line of fracture found to start a little behind the parietal eminence and run backward crossing the right lateral sinus without injuring it and into base to a point where Dr. Meeks could no longer follow. The patient died but we could get no autopsy. Many extra-dural clots were removed.

The next case was a fracture from a fall during a spree. On the third day, there was some paresis of the seventh nerve, the drum had a kidney shaped opening therein and dried up quickly.

Our next case was struck by an auto and the laceration of the canal was plainly visible above and behind, there was a lump behind and above the ear and at operation, the fracture line ran down into base. The discharge of blood soon ceased and the outer canal wall became diffusely swollen and inflamed and ended by forming several small furuncles, a process not so unusual after basal fracture.

Next is a boy who fell and struck his head upon the sidewalk. He was unconscious for a time, had hemorrhages from the right ear from the invisible point anteriorly and just external to drum; and on the third or fourth day, had a paresis of the seventh nerve.

Our next patient was struck on the head by a black-jack. Three days later, he calls and we find left pupil larger than right. Lower part of disc outline is blurred on left side. There is a clot of blood adherent to the anterior portion of the left membrana and still attached to a similar mass on the other side through a tear in the drum. This ear oozed off and on for some time and soon the canal wall showed the diffuse infection and ecchymosis spoken of before, ending in several furuncles. About six days after injury, seventh nerve injury is apparent because of lagging eye-lid but it never became a complete paralysis. Stooping produced noises in affected ear and tuning fork tests showed deafness to be of obstructive type and not internal ear.

The next case was a typical basal fracture with much blood from the ear, resulting from a fall down a flight of stone steps while intoxicated. The blood came from the usual point, anterior to and external to drum. Tuning fork tests showed deafness to be of obstructive type. His hearing was not entirely lost and syringing ear with cold water brought nystagmus as it should. This patient illustrates another form of infection to which these basal fractures are liable. He had numbers of emboli, ran a septic temperature and had a profuse discharge of pus from his ear. His kidneys showed chronic interstitial nephritis and after a long illness, recovered with a chronic running ear.

His seventh nerve symptoms did not appear until the third or fourth day and were only partial. I should prefer to have opened his mastoid but his condition seemed to indicate an infection of the diploe of the base and as the internal ear was working, we held off. The internal ear usually escapes in these injuries because the bone is so much harder; and the hollowing out to provide a place for the middle ear is a much weaker line which the fracture follows. The internal ear can be destroyed, apparently by the effects of the concussion alone. Thus we have the experience of Mr. C. who fell in the gymnasium and struck his head upon the floor. He was unconscious for ten minutes and for a week or ten days, the ear on that side "roared" and finally ended in complete deafness. There was never any blood from this ear or suggestion of fracture and although his membrana are in good condition, the tuning fork on the vertex is referred to the good ear and he can hear nothing on the right side. This happened before we knew of turning tests.

The amount of serous discharge may be enormous. I remember one case which was examined by Drs. Schenck, Warner, Paine and myself and the fluid of a semi-purulent nature could be wiped out and in a few seconds a few more drops could be seen to gather from the usual place, anterior to and external to the drum where it can not be observed.

The danger of basal fractures is infection. An opening is made directly or indirectly from the sub-dural spaces usually, into the middle or external ear, the fracture line usually crossing both, this affording an excellent opportunity for infective agents always present in a mucous membrane or skin lined cavity, to reach the meninges, diploe of the basal structures, the middle ear, the canal wall of the external ear and even, in rarer cases, into the internal ear. We have already illustrated all of these except the internal ear and will offer an example in conclusion.

Mr. S. tried to pry a 250 H. P. gasoline engine "off center." He succeeded but too suddenly and was thrown against the side of the vessel. Blood came from both ears and after a little grogginess he resumed his duties but was compelled to quit after a few days. His nose bled at the time of the accident also. After his ears had growled for a couple of days, one was opened and pus escaped. A week or ten days later, the other opened spontaneously. Was in hospital for four weeks and with no very definite symptoms except his hearing gradually left him and now he can hear human voice at ordinary tone at six inches for left and not at all with right. With left ear has slight air conduction for C4 fork, only.

When placed in a turning chair and whirled to the right for ten turns at the rate of one turn for two seconds, he has nystagmus to the left for eleven seconds, amplitude of nystagmus short. When turned to the left in manner described above, the nystagmus is of two seconds' duration; confirming the test first made showing the horizontal canals of both ears in bad shape especially the right. He past points outward one foot with each hand spontaneously and after turning, he past points outward two feet both hands. Complains of practically no vertigo. The optic nerves are pale, his fields of vision contracted and vision reduced. Evidently his fracture has resulted in a low grade infection of both internal ears.

To sum up, basal fractures produce as one would expect, infections. Low grade meningitis with pressure and blurred optic discs is now claimed by some surgeons to be the indication for lateral decompression. Fatal meningitis is not uncommon. Sepsis with emboli is not so rare. The occurrence of diffuse inflammations of the external canal resulting in small pus collections has happened in several of my cases but I have not noticed it in literature. Traumatic mastoiditis is a recognized result of infection of the mastoid by way of middle ear. The effects on the internal ear vary from concussion effects to diffuse infective labyrinthitis.

If the ear is involved in a basal fracture, watch the seventh nerve for at least a week or ten days because it is the most frequent nerve effect to be noted and is not by any means always a paralysis. Finally, inspection of the ear, not infrequently shows

the actual line of fracture crossing the inner portion of the canal. Here the integument lies close to the bone, no cartilage intervening and a bone fracture must also affect the skin as it is closely attached. The inspection should be early, as three days sometimes sees all local signs of the fracture cleared up. Do not be disappointed if you cannot see the place where the serum or blood oozes from. The canal close to the drum anteriorly is not to be seen as it is "around the corner" so to speak. This is the point where the fluid frequently enters the external ear.

HEALTH INSURANCE FROM THE PHYSICIAN'S STAND-POINT.

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ONE of the most important factors in the proposition of health insurance is the attitude of the medical profession. Of this there can be no doubt.

The experience of medical men the world over has been that health insurance laws thus far enacted or proposed have contained radical defects which have militated against the successful accomplishment of the purposes for which they were proposed. The progress of medicine is dependent upon scientific research. Health insurance gives no incentive towards the development of original research work and in consequence medical progress will cease with the incoming of compulsory health insurance.

The physician at present is a private practitioner. If he does much work of a high class he is well remunerated. If he does little work or poor work, his compensation is small. If however, medical practice is going to be so reorganized as to require each man to do a definite amount of work each day, and to come to a definite standard in his work, the average compensation as it now exists would probably be neither adequate nor fair.

Personal relations between the physician and his patient will cease. Five hundred families, or one thousand insured or some such ratio as this, would give on an average to each physician probably twenty or thirty patients a day to see. Patients sent to hospitals must be attended by members of the staff, who are enrolled as compulsory health physicians.

The public has long considered it a part of the physician's duty to give his time and knowledge to charity whenever the very poor were concerned. This has been willingly and gladly given, but because it has been so willingly given is no justification for asking that physicians under the health insurance law shall not be justly and adequately remunerated for an adequate service. Physicians must earn their livelihood in carrying out the provisions of the law and they are justified in expecting that the standards of this livelihood shall not be lowered from the standards that they already possess. These are the standards of the professional classes of the community and not always those of the daily wage earner.

The effects of compulsory health insurance on the incomes

and status of English and German physicians furnishes a warning by which we should profit.

In considering the medical organization under any health insurance law, we must recognize fully and appreciate clearly that the medical men are an essential part of its working machinery. It must also be appreciated that medical men belong to a profession that has standards of living which are often not the standards of their patients, different customs under which they live, and even the rules of ordinary ethics of humanity have been adapted to fit the peculiar life and work of the profession. The fees of health insurance physicians will be small. It has been pointed out that it would require 10,000 doctors to make up the total number of doctors necessary throughout the State to treat on an average of about 1,000,000 sick men who would be sick nine days out of the year, and that it would be impossible to get over a thousand doctors who would take the jobs at an average income of \$2,500 a year.

It is the inherent defects in a capitation payment of so much per person per year, which the New York State Journal of Medicine points out, that have made "lodge practice" so opprobrious among the medical profession. In other words, it is the basis, not merely the rate of payment, which has encouraged careless work for these lodge patients, for whom payment is received regardless of the services rendered. Payment per visit, while it avoids this difficulty, since it remunerates the physician in proportion to the services rendered, and while it affords more considerate care for the patient, has the unfortunate practical advantage of being very costly.

The capitation payment of so much per person per year, has in it elements which bring about an undue amount of work, and in turn forces neglectful, hurried service to the patients. Another plan is that of engaging a salaried physician, similar to the arrangements now made by many railroads. Since no fund could employ many physicians, the limited choice of doctors might be unfavorably regarded by some of the insured persons.

A compromise between payment per visit and capitation may be made by which a total sum, calculated on the per capita basis, is distributed among physicians in accordance with the services rendered by each.

Capitation has certain inherent evils. It is the method of lodge practice, and payment under this method would make remuneration to physicians under the insurance law one of lodge practice.

In the combined method of remuneration there is the possibility that in any great stress of work, in an epidemic or in a season when morbidity is high, the value of team work by physicians might be developed. The evils of it are that it produces overcrowding of work on the part of the physicians, forcing hurried and inadequate service, and worst of all, under such circumstances that the really sick patients who need the greatest amount of attention are the least adequately cared for. It produces the kind of contract practice against which the profession has protested for years, and because in the past it has forced overwork and under pay to the physician and the poorest kind of returns to the patient, it has been invariably bitterly condemned by the

profession. It can be argued that if the number of patients on a physician's list are limited to 1,000 insured, or 500 families, this overcrowding will not occur. This may be true, but there is the invariable tendency to neglect the really ailing and the sickest patients. In this way you begin on the basis of a kind of practice that is held in contempt, against which there is a strong antagonism, dealing with a social force.

In England and Germany the medical profession has been placed in a false position, and in struggling against it the profession has injured its standing in the eyes of the public. The fight has been in Germany between the profession and the sick funds, and in England between the profession and the friendly societies. All health insurance laws deal naturally with those who cannot obtain adequate medical care without them, hence the point of view of the public that the medical profession should give to the schemes of health insurance full service of the best that was in them, for no compensation, or for compensation on a basis which placed them in economic starvation.

One of the most noticeable features of the workman's compensation laws to-day is the totally inadequate surgical care provided by the law to the seriously injured person and the inadequate remuneration which any honorable physician may obtain when caring for any person who is seriously injured.

Sir Bertrand Dawson points out the unenviable position of the English physician, who is overworked, under paid, and without influence in medical affairs affecting the public. Indeed he appears to be without influence in affairs affecting himself. This deplorable state of the English physician is not a consequence of the war, but of the workings of the national health insurance law. The medical slave in England can earn very little through panel work, unless a panel is very large, and the physical strain leaves no place for scientific practice. The whole miserable scheme is an economic and scientific absurdity. The compulsory health insurance doctor will have no time for study or reflection. He will be like a machine, attending to the sick and the malingerers, in his office and in their homes. There will be no individualism but on the contrary their will be a tendency towards communism.

In a broad sense social medicine is socialism, the idea being to equalize things. Instead of equalizing you drag down those who are high up. If you want to begin general socialism, socialize medicine, then law and all the professions, and everything else, then you will have Bolshevism which stands for a national lunatic asylum, the condition of Russia at the present time. Begin with medicine and you do not know where it will stop. The worst profiteers are those who go about organizing associations ostensibly for the "uplift" of the masses, soliciting liberal contributions from a gullible public, and under the guise of philanthropy securing fat jobs for themselves. Recently Dr. Jas. Sullivan, State Historian of New York said, "There are very few so-called 'uplift agencies' in New York that are not run by some Socialistic group under the guise of a welfare organization. It pays to be a professional uplifter. Get behind the scenes and see who is running these affairs. They stage and play the game with the finesse of the artist."

Nobody realizes more than a member of the medical profes-

sion many of its shortcomings, but we must say however that practically every effort that has been made in the State legislature or elsewhere, to raise the tone and the quality of the medical profession, has been introduced by the profession, and such measures have almost never been supported by anybody but physicians, with the result that the profession is charged, whenever it attempts to raise its standard, with an attempt to create a medical trust. This charge is made when it is acting against its own immediate personal advantage.

There is one word that is repulsive to every American citizen. That word is compulsory. Compulsory health insurance is not compatible with our free American Government. It is against individualism which has made this great nation the nation it is. If you keep on with such legislature you must take your choice between paternalism and Americanism. You cannot introduce paternalism and institutionalism and still retail your individualism and Americanism and at the same time hold your ideals of democracy.



COOPERATIVE DIAGNOSIS.

THE announcement in the daily press that the Long Island College Hospital is prepared to offer to its alumni the benefit of diagnosis by the hospital staff of difficult cases, brings into clear relief a situation that calls for careful analysis. The bearing of such an offer upon the body of alumni and upon the general profession needs to be studied and the general effect upon the general public is as yet an unknown matter. In so far as the proposition promises to supply to worthy patients of limited means the benefit of study by a well equipped group of clinical and laboratory observers, one welcomes this move as a great advance upon present methods, although it is by no means so revolutionary as appears at first glance. As a matter of fact most of the better hospitals and clinics have been accustomed to accept patients for diagnosis and study and have been doing so for years. This is true not only of Johns Hopkins, whence the mention of Dr. Barker's name would lead one to fancy the idea had sprung, but of progressive hospitals all over the country. Ward patients in hospitals have had the benefit of this group method of study for the last quarter of a century at least.

When the idea is broadened so as to include a moderate fee,

which the patient is to pay for the diagnosis, and which is to be divided among the members of the staff, a somewhat different angle of refraction is established, inasmuch as a money basis replaces the idea of voluntary service and introduces the possibilities of a great abuse. Very few will question the proprietary of making a proportionate charge according to the means of the applicant, inasmuch as the responsibility upon the physician increases in proportion to the value of the patient in the social scale, a theorem that only the rabid socialist will controvert.

If all properly equipped hospitals and medical schools adopt this group method and all unattached physicians are compelled by the popular demand to refer their patients to some one group, who is to be sponsor for the proper charge and who is to guarantee the group against being swindled by those unprincipled people who are constantly endeavoring to obtain something for nothing?

It is easily conceivable how in an endowed institution paying a fixed salary to its medical staff, the added income from such group diagnosis would be an acceptable addition to their individual salaries. But how about those institutions that are served by a voluntary staff? If the institution charges for board and lodgings and adds to that a moderate fee, the proportion for each staff member after deducting the hospital charges in the average case would prove far too small to provide anything like an adequate remuneration for the amount of time required on the part of the individual staff.

Certain institutions have for some years past attached a regular medical fee to all those patients occupying pay beds, varying with the character of the accommodations. Such fees under this new plan would probably be turned into the general fund for division among the staff and if past experience warrants a guess as to the future it would be so inconsiderable as to make it cheaper to give up and confine one's practice to private work only.

On the part of the private practitioner there is established a discrimination which may tend to make the public feel that they are not getting adequate service from the average man especially in those instances where his name is not published as among the "specialists" attached to some hospital. Doubtless as time goes by more and more diagnostic laboratories will come into being and so-called "group medicine" will assume a more general place in the community. One will watch with keen interest the growth of this latest addition to diagnostic facilities and will study with interest the methods used to accommodate the scheme to the needs of the existing system. H. G. W.

SIDE LIGHTS ON HEALTH INSURANCE.

PHYSICIANS generally cannot fail to see in the facts being brought out by the investigation into the Workmen's Compensation Law, strong corroboration of their belief that compulsory health insurance will only serve to multiply the present evils of this act. Testimony thus far adduced has tended to

show that employees of the State Commission have abused their positions by accepting favors, to put it mildly, from insurance companies, by conspiring with claimants to increase awards which they dishonestly divided and by settling claims to their own advantage and to the disadvantage of the claimant. More recent testimony, if it be correctly reported by the daily press, bears upon the activity of Dr. Mayer Wolff and his system of compensation service. The doctor frankly states that he has employed more than half a hundred physicians on a salary and that through them he has succeeded in so systematizing compensation work that "7100 cases were treated last year at an average cost of \$5.50 a case, whereas the average for cases treated by all other physicians was \$15.50 a case." (N. Y. Times Oct. 10, 1919.) Upon its face this would appear to be a business showing that should appeal as a remarkable economy to any business man, and that might be accepted as a strong argument in favor of this method of dealing with sickness, as well as accident. The meager facts of the newspaper report, however, gave no inkling of the sort of service rendered for this money nor the average payment per visit, nor do they give any hint of Dr. Wolff's personal profit from a method of treatment that has been frowned upon for many years because it is altogether too closely allied to the methods employed by those so-called companies that offer to supply medical treatment at 10 cents a week. It is an axiom in medicine, as it is in general trade, that the man who pays 50 cents gets only 50 cents' worth and that bargains of that sort are always of questionable value. While it is conceivable that a young man beginning practice without friends and without means might for a time utilize such an opportunity to keep from starving, experience has shown that the vast bulk of such practitioners are to be found among the less well qualified who have not been able to hold their own in the race.

Testifying at the same time, Dr. Alexander Lambert said that "a good deal of bitterness had grown up among physicians because of employment, by the State Fund, of physicians who interfered with the practice of other physicians in various communities and that the opposition of the medical profession to all social insurance is due to the bitterness which the physicians feel toward the Workmen's Compensation Act."

While this statement of Dr. Lambert's expresses part of the truth, it does not express the whole truth in the matter. The bitterness of physicians in general as directed toward the Compensation Act is not against the Act as such, but against the construction of the Act which makes it possible for insurance companies to dictate just what a physician shall receive for certain specified service and the demand on the part of these companies that the physician shall subscribe to a schedule of compensation that is arbitrary and unfair, inasmuch as it makes no allowance for the element of personal skill or experience or special technical acquirement by which one physician may excel another. Dr. Lambert is himself in some way to blame for this situation as his suggestions for an average fee bill have been adopted as authoritative by commission and companies alike and in many quarters deep resentment exists on that account. But

among the better class of physicians and especially among those who think and particularly in that somewhat smaller number who have taken time to consider the pros and cons of health insurance, it is not bitterness against the Workmen's Compensation Law as such, but against the manifest failure of that law to grasp the essential and central fact which makes them bitterly opposed to any extension of the idea as it is now being urged.

The central fact of health insurance postulates a plan whereby those who are unable to pay may yet receive the same kind of medical care that the well-to-do are able to provide. That this has not been provided under the Workmen's Compensation Act can be clearly demonstrated by any one who will take pains to look into it. Without going into details and upon the face of Dr. Wolff's testimony as reported, it is perfectly evident what kind of care can be procured in surgical cases at an average of \$5.50.

Then too, the faults of administration as already shown form another and very definite objection on the part of any taxpayer who will give the matter thought. Furthermore, the estimates for expenses, administration, supplies, nursing and medical fees are preposterous. After the general expenses have been deducted from the estimated assessment of \$24.00 a year, some \$3.50 remains to cover the actual fees for professional care. Compare this with what has already been submitted by Dr. Wolff and it is easy to see why physicians are opposed to undertaking this class of work, which they justly recognize as a preliminary step to confiscation of their civic rights and intellectual acquirements by the State. The whole proposition is a monstrous piece of public charity which the State proposes to shift to the shoulders of the doctors and in spite of sophisticated statistics of German and English origin, it is perfectly evident that the plan is essentially a political move and a bait to the so-called labor element. If there were no other reason for fighting compulsory health insurance tooth and nail, facts now being brought out before Commissioner J. F. Connor should furnish abundant reason why the Legislature should refuse to consider these schemes absolutely.

On the other hand, physicians as a class will welcome and heartily cooperate in any plan which is based upon the theorem of inculcating thrift and helping the poor man to insure himself against sickness. Any scheme which will increase his self respect, which will help him to help himself, and which does not at the same time place upon certain special classes of Society a burden in which they have no part and which at the same time can be so controlled as to cut out dishonest graft and special privilege, will meet with help from the doctors. What we object to is being made the catspaw for somebody else's monkey.

H. G. W.



Society Transactions



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, May 1st, 1919, at 8:30 p. m.

The President, Joseph P. Murphy, M. D., in the Chair.

Program.

CASE REPORTS:

1. Osteomyelitis of Femur. X-rays.
2. Rupture of Spleen.
3. Gastric perforation by Fish Bone. Specimen.
4. Carcinoma of Pylorus. Specimen. X-rays.
5. Mesosigmoiditis.
6. Fracture of Skull. X-rays.

Thomas M. Brennan, M. D.

Case 1 discussed by Drs. James H. Downey, Frederic C. Paffard, Frank D. Jennings and Thomas M. Brennan.

Case 2 discussed by Drs. Frank D. Jennings and Thomas M. Brennan.

Case 3 discussed by Drs. James C. Kennedy and Arthur H. Bogart.

Case 4 discussed by Drs. Frank D. Jennings, James C. Kennedy, Arthur H. Bogart, William V. Pascual and Thomas M. Brennan.

Case 5 discussed by Drs. Frank D. Jennings, James M. Downey, Joseph P. Murphy and Thomas M. Brennan.

JOSEPH P. MURPHY, M. D., President.

FRANK D. JENNINGS, M. D., Secretary.

OSTEOMYELITIS OF THE FEMUR.

Thomas M. Brennan, M. D.

M. W., male, age 8. Admitted to St. Peter's Hospital, Nov. 26, 1917, complaining of:

1. Pain just above left knee.

Family History: Negative.

Personal History: Negative.

Present Illness: Onset was sudden, about 4 days previous to entrance to hospital, Nov. 22, 1917. On this day the patient fell from a vedanda 6 feet high. He went home and after being in bed for a short time, he had severe pain in the left knee. His mother applied wet dressings to the knee, but same did not improve. It gradually grew worse, so that on Nov. 26, 1917, the child was unable to walk.

Physical Examination was negative, except for the left thigh, above the knee, which was swollen, reddened, indurated, tender and painful.

Clinical Data: Temperature, 104 on admission. For the next 20 days same ran a septic course, between 101-104. From Feb. 1, 1918, on the temperature was normal.

Pulse proportional to temperature.

Respirations, normal.

Blood count, Nov. 26, 1917: W. B. C., 16,000. Polys., 92.

Urine, negative, except for slight albumin.

X-ray reports: Nov. 26, 1917, Osteomyelitis of left femur. Left knee, negative.

Oct. 21, 1918, Osteomyelitis of left femur.

Jan. 28, 1919, Osteomyelitis of left femur.

Feb. 2, 1919, Osteomyelitis and pathological fracture of left femur. Osteomyelitis of lower end of humerus.

Bacteriological report of pus from wound: *Staphylococcus aureus* and streptococci.

Operations: Nov. 26, 1917, Incision outer aspect of thigh; 6 inches of periosteum found separated from bone; bone full of pus. Medullary cavity opened and drained.

Dec. 9, 1918, Incision over old scar; bone curetted and washed with carbolic solution, 1-20.

April 2, 1919, About 4 inches of sequestrum removed from lower third of femur.

Complications: During last month, broncho-pneumonia of severe type.

Bone involvement in left fibula at its lower end; right tibia just above malleolus; and osteo-arthritis of elbow-joint.

This case was of particular interest because of its long duration, its many complicating phases and the ultimate outcome. In spite of the thorough opening of the medullary cavity in the primary operation, the bone destruction continued and a pathological fracture occurred just above the lower epiphysis of the femur. This complication required careful dressing and immobilization with extension and suspension.

The complicating pneumonia and the various extensions of bone trouble all added to lower the child's resistance and prolong the case.

He has no shortening, but walks with the slightest limp because of slight stiffness in the knee, which I am sure will be relieved gradually. His general health has improved, and the complicating bone lesions have healed.

RUPTURE OF THE SPLEEN.

Thomas M. Brennan, M. D.

N. J., male, age 17; occupation, conductor; single. Admitted to St. Peter's Hospital Feb. 26, 1919, complaining of:

1. General pains over entire body, particularly the left chest, posteriorly.
2. Sharp pain in abdomen.
3. Colles' fracture of left forearm.

Family History: Negative.

Personal History: Negative.

History of Injury: During a collision 3 days ago (Feb. 23, 1919), the patient was thrown off a trolley car to the street.

Physical Examination showed: Signs of general contusions over the body, particularly the left chest, posteriorly. Left Colles' fracture. Abdomen somewhat tense and slight tenderness over the left hypochondriac region.

Clinical Data: Temperature fluctuated between 100 and 102, reaching normal on Mar. 7, 1919.

Pulse proportional to temperature.

Urine, negative.

Blood pressure: Mar. 3, 1919, S. 152; D. 78. Mar. 4, 1919, S. 158; D. 84.

Blood count: Feb. 26, 1919, Hgb., 80; W. B. C., 9900; Polys., 55; S. L., 11; L. L., 25; Eos., 4; Tran., 5. Feb. 28, Hgb., 75; R. B. C., 3,300,000; W. B. C., 24,800. Mar. 1, Hgb., 70; R. B. C., 4,100,000; W. B. C., 14,000.

Operation, Mar. 1, 1919: Four-inch high left rectus incision. Abdominal cavity contained numerous blood and fluid clots. A 2-inch rupture was found in the spleen, extending from the hilum to the periphery; also a crack on the under surface, 1½ inches, irregular in outline. Omental tissue was placed along the line of rupture and the same sewed in while closing the split in the spleen with interrupted sutures of No. O plain catgut. Cigarette drain inserted. Abdomen closed in the usual way.

The next few days the patient was very sick. The pulse became very rapid and went as high as 160; the systolic pressure at that time was between 152 and 158; diastolic between 78 and 84. Considerable distension. Gradually, conditions improved and the patient recovered and was discharged cured. The Colles' fracture gave a good result.

CARCINOMA OF PYLORUS. SPECIMEN. X-RAYS.

Thomas M. Brennan, M. D.

G. P., female, age 24, U. S., widow. Admitted to St. Peter's Hospital, June 10, 1918, complaining of:

1. Pain in stomach and around back.
2. Vomiting; cannot retain any food.
3. Loss of weight.
4. Constipation.

Family History: Negative.

Personal History: Negative.

Present Illness: Onset quite sudden, about 2 months ago (May). After breakfast, the patient experienced a sharp pain in the stomach, which traveled around to the back and then up to the left shoulder. The pain was constant for an hour. Since then, the patient has had several attacks of pain:

1. Character of which was sharp.
2. Location, epigastric region.
3. Radiation to back.
4. Duration, 1-2 hours.
5. Frequency, after every meal.

6. Relation to meals, occurred soon after meals.

7. Associated symptoms, (a) vomiting—occurred during each attack of pain. Vomitus contained only ingested material. (b) Loss of weight.

Physical examination was negative, except for: Heart: Left border out one-half an inch beyond normal. Abdomen: Stomach feels tense and almost reaches the umbilicus. No palpable masses. Tenderness over the appendix.

Clinical Data: Temperature, normal. Pulse, normal. Respirations, normal. Gastric contents: Free HCl., 8 c. c.; loosely combined, 14 c. c.; organic, 2 c. c.; total acidity, 24 c. c.

X-ray Diagnosis: Suspicious ulcer of stomach.

Wasserman: Negative.

Operation, June 28, 1918: High right rectus incision. Findings: hard mass involving two-thirds of the stomach and extending along the entire lesser curvature. Partial gastrectomy was performed, uniting the duodenum to the cardiac end of the stomach. The appendix was removed.

Pathologic report: Adenocarcinoma in old ulcer.

Patient discharged cured July 21, 1918.

She has gained in weight. The only difficulty is if she eats too heartily or eats coarse or undigestible food. No pain. No recurrence so far.

MESOSIGMOIDITIS.

Thomas M. Brennan, M. D.

G. S., male, age; occupation fireman; married. Admitted to St. Peter's Hospital Aug. 12, 1918, complaining of:

1. Frequent bowel movement, averaging about 20 daily.
2. Loss of weight, about 75 pounds in the last 8 months.
3. General weakness.

Family History: Mother died from cancer of the stomach.

Personal History: Negative.

Present Illness: About the end of January, 1918, the patient complained of frequent loose stools, not accompanied by any pain. On Feb. 5, 1918, the patient entered Bellevue Hospital, where he remained till May 15, 1918, a diagnosis of ulcerative colitis being made. During the later months of 1918 each stool was accompanied by slight cramp-like pains over the hypogastric region.

Physical examination, normal, except for large hemorrhoids and small nodulations around the anus, resembling condylomata.

Clinical Data: Temperature, pulse and respirations, normal; blood count, normal; blood pressure, normal.

X-ray of the chest shows a chronic bronchitis. X-ray of the intestine not obtained, for patient could not retain the bismuth.

Wasserman, negative on 2 examinations.

Proctoscopic examination revealed numerous ulcerations of the rectum and colon; thickened mucous membrane; bleeds easily; quantities of mucus. Tissue from the region of the anus was negative for cancer (epithelioma). Had the appearance of condylomata.

Patient under most thorough medical care and treatment until Feb. 1, when he came on my service for an exploratory laprotomy.

Operation, Feb. 3, 1919: Right rectus incision. Sigmoid and rectum found thick and chronically inflamed. The mesentery was thickened and contained many hard glands, which, microscopically, showed chronic inflammation. Mesosigmoid stiffened and set as if "starched." Adhesions between coils of sigmoid were broken up. There were no evidences of diverticulitis. The patient stood the operation well. His diet was watched carefully. Medication: Bismuth, Dover's powder and salol, etc., for a week, gradually eliminating the Dover's powder.

At the time he left the hospital he was eating everything except meat, and the only medication was Basham's mixture and strychnia. He was suffering no pain and the bowel evacuations had been reduced to 3 in 24 hours, formed, but accompanied by some mucus. Since then he has regained his weight, has resumed his occupation and now has one or two regular bowel movements a day with very little mucus.

GASTRIC PERFORATION BY FISH BONE. SPECIMEN.

Thomas M. Brennan, M. D.

Mrs. P., 76 years old, suffering from chronic rheumatism for many years. Joint deformities had crippled her and made her an invalid for a long time past. She was unable to extend her legs. She was never able to lie on her back and always assumed a position on either side.

She was seen by me on a Thursday evening. She had been sick for four days, suffering from abdominal pain, more or less constant, with acute exacerbation, located in the centre of the abdomen and epigastrium. There had been no vomiting, but there was anorexia and nausea. The bowels were constipated. They had moved after repeated enemata, but scantily.

Investigation of her past personal history elicited nothing significant. There had been no previous stomach complaint—simply a history of chronic constipation with occasional abdominal distress. There was no inspiratory pain. The pulse was small, compressible and weak—about 90. Temperature, by rectum, 100. Respirations, 24. Tongue, slightly coated, but moist. No yellow tinge to sclera. Urine, scant. No albumin or casts or sugar. The heart exhibited signs of myocardial weakness. Abdomen, slightly distended, especially the upper right hypochondrium and epigastrium.

Sense of resistance to palpating finger, a resistance that was significant of more than muscular tension. Percussion note dull. No increased resistance in the costal arch. Abdomen tender, particularly over the right hypochondrium.

A diagnosis of surgical abdomen was made with perforation of the duodenum (?) or gall-bladder or pancreas.

Operation advised, but the patient refused. Twenty-four hours went by. The patient grew worse. She was more restless, did not sleep and vomited, retaining nothing. She then consented to operation, which was performed Friday evening, just five days after the onset of pain.

Operation: Right rectus incision. Omentum adherent over the gall-bladder and attached to the anterior surface of the liver. Gall-bladder distended. Mass in region of pylorus, near the lesser curvature, consisting of piece of omentum, thickened and inflamed, plastered on the anterior wall of the stomach. On releasing this omental pad, we discovered a piece of fish bone penetrating the stomach wall, with the mucus membrane protruding about it. The bone was removed and the mucous membrane excised. The area was infolded and an omental graft sutured over it. The wound was closed with drainage.

The patient withstood the operation well. There was no shock, no vomiting, the urinary output was satisfactory the bowels moved, and there was no distention. She did well for twenty-four hours, but early Sunday a. m., thirty-six hours after operation she began to sink, the pulse grew weak, the extremities became cold, she had difficulty in swallowing, pulmonary edema supervened and the patient died.

(To be Concluded.)

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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4 PAGES

BACTERIOLOGY AND MYCOLOGY OF FOODS.

BACTERIOLOGY AND MYCOLOGY OF FOODS.
By Fred Wilbur Tanner, M.S., Ph.D. New York, John Wiley and Sons, Inc., 1919. 592 pp. Illustrated. Plates. 8vo. Cloth, \$6.00.

"This volume, according to the author, represents the out-growth of a course in food microbiology at the University of Illinois," designed for students who wish to fit themselves for food control, food chemists, and for those students in household science who possess a sufficient fundamental training in chemistry."

It would be a distinct pleasure if the reviewer were able to welcome this book as an important contribution to the science of food-microbiology. His inability to do so arises from several considerations.

The book, as a whole, gives the impression of being, in considerable part, a compilation, somewhat loosely constructed and sometimes presented with but little regard for the conventions of grammar and spelling. Being a first edition, errors and possibly crudities can be partially extenuated. As regards spelling, on page 236-37 we find the word acidophile spelled acidophile, acidophilli, acidophile. Alkaline appears constantly without the e.

A still stronger complaint can be registered concerning the construction of many of the sentences. "While any method may be used to stain bacteria certain pieces of apparatus are more convenient than others." p. 80. "When the staining procedure is carried out by the putting the dye on the bacteria on a slide or cover glass, it may be kept in ordinary dropping bottles." p. 81. Ambiguity arises from such writing as this: "It was about this time that Buchner reported the changing of *B. subtilis* into *B. anthracis*. The publications of Cohn and Koch proved the constancy of this characteristic and struck a powerful blow at pleomorphism." p. 95.

The different standard methods of the

American Public Health Association are rather freely quoted. The chapter on culture media is fairly complete and the chapter on Milk and Milk Products is rather comprehensive.

A valuable feature of the book is the bibliography appended to each chapter. The book is well illustrated and the colored plates are especially fine.

WADE W. OLIVER.

DIET IN HEALTH AND DISEASE.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M.D., and John Ruhrah, M.D. Fifth Edition, reset. Phila. & London, W. B. Saunders Company, 1919. 919 pp. 8vo. Cloth, \$6.00.

The reviewer can add nothing to what has been said in former reviews concerning the value of this work on Diet. Any book which has gone through five editions has proven its value and established its place as an authority on its subject. In this fifth edition the Authors continue their original plan of making the work practical, useful and complete. They have eliminated from this edition some of the subjects which could be dispensed with in order to make room for the more recent studies in metabolism and their relations to diet. The present ideas of feeding in nephritis, diabetes, pellagra, and acidosis, together with the more recent ideas of infant feeding are carefully reviewed and presented in this edition. The numerous tables of food values and the diets in detail to be given in diseased conditions make this work of value as a reference book. Every practitioner who is endeavoring to give his patient the best should have this work for study and reference. The publishers have presented a volume in keeping with the usual high standard of their publications—the finest of paper and clearest type make this book a pleasure to read in addition to the subject.

HENRY M. MOSES.

THE OPERATIONS OF OBSTETRICS.

THE OPERATIONS OF OBSTETRICS. Embracing the Surgical Procedures and Management of the More Serious Complications. By Frederick Elmer Leavitt, M.D. St. Louis, C. V. Mosby Company, 1919. 466 pp. 248 illustrations. 8vo. Cloth, \$6.00.

The volume on Operative Obstetrics is well worthy of study by the expert accoucher, and a critical review of the book shows much of value.

The Author's delivery-bed commends itself especially as the most practicable which we have ever seen, saving the nurses and physicians much labor in pulling the patient up and down. While we all still use chloroform to a certain extent, we have found ether to be the safest anesthetic especially in the hands of the junior interne or the nurse, and these are usually the people to whom the administration is left. Chloroform is contraindicated in all cases of toxemia.

We cannot agree with the doctor in the use of tents for the induction of labor, or the use of the vaginal douche for the induction of premature labor. We consider both of these methods as prone to cause infection.

With regard to the use of the branched metal dilators of the Bossi and Leavitt type, we can say nothing commendable. We do not believe that even the expert can use these instruments without causing some degree of cervical laceration and even slight lacerations lead to subsequent pathology. The same criticism must be made of forcible extraction of the child before full dilatation of the cervix. The liberal use of morphine in the first stage of labor does much to aid dilatation. In case of emergency, when the cervix is effaced, the incisions of Dührssen are to be recommended. The writer of this criticism never makes more than two incisions in such a cervix and these are never directly lateral or anterior or posterior. Two incisions, one antero-lateral and the other in the opposite quadrant, give a better result after the repair and the position of the incisions prevents injury to the broad ligament vessels, bladder or rectum, in case the incisions tear further at the time of delivery.

The chapters on Abdominal and Vaginal Cesarean Section are excellent and the different operations are thoroughly described.

The illustrations throughout the book are numerous and good. We were rather disappointed in the lack of detail with regard to contractions by the pelvic outlet.

The book, while it might be dangerous in the hands of the student, is an excellent one for the expert in obstetrics, the man who has already acquired mature judgment.

Ralph M. Beach.

THE HEALTH OFFICER.

THE HEALTH OFFICER. By Frank Overton, A.M., M.D., D.P.H. and Willard J. Denno, A.B., M.D., D.P.H. Philadelphia and London, W. B. Sanders Company, 1919. 512 pp. Illustrated. 8vo. Cloth, \$4.50.

As indicated by the title, this book is written by experienced Public Health Officers for the guidance of Health Officers. It describes the various activities in which the health officer engages and tells him what he is expected to do and how to go about it.

The authors have collected a very large amount of information on all subjects pertaining to public health and sanitation, and have arranged this information under appropriate headings in forty-four chapters. The large number of subjects treated has necessitated the exclusion of long discussions and the adoption of a concise and direct style. The language is as non-technical as possible. The chapters on epidemiology, etiology, methods of transmission and management of the communicable and infectious diseases, are to be recommended to medical students and the younger practitioners. They will find here in concise form much useful information, which will not be found in the ordinary text-books on practice or in books on pediatrics. The style is popular rather than strictly scientific or technical, and strict accuracy is often sacrificed to the popular style of expression. The authors state in their preface that "the simple language and untechnical form will commend it to college students, public health nurses, members of boards of health, social workers, teachers and others who are interested in public health work." It must be admitted that it is a difficult task to write a book to apply to such diversified readers. Some of the descriptions of technical laboratory processes are too technical for some of these classes, and too incomplete for one who proposes to use them as a practical guide, to work by.

In spite of these defects, the book is timely and can safely be recommended to all who wish information on public health work.

E. H. B.

THE PERITONEUM.

THE PERITONEUM. By Arthur E. Hertzler, M.D., F.A.C.S. 2 volumes. St. Louis, C. V. Mosby Company, 1919. 870 pp. 230 illustrations. 8vo. Cloth, \$10.00.

Amid the many worthless books that are yearly poured forth the lucky discovery of these volumes on the Peritoneum in current medical literature gives one a thrill similar to that caused by finding a four leaf clover after a long search.

The mature product of 25 years of observation, study and research, this is a valuable contribution to permanent medical knowledge. The inspiration responsible for its conception and birth is given by the author. "This entire monograph is an attempt to answer the question of indications for Operation for one individual surgeon."

To show the comprehensiveness of these volumes one must mention the headings covered in the various chapters. Volume I. Physiology, Histology, Development and Gross Anatomy of the Peritoneum, Wound Healing, Nature and Genesis of Peritoneal Adhesions, their Prevention, Changes in the Circulation and Inflammatory Reaction of the Peritoneum. Volume II. Classification of Peritonitis, Etiology, Pathogenesis Symptomatology, Diagnosis, Prognosis, Cause of Death, Treatment, Operations, Appendicitis; Cholecystic, Gonococcic, Pneumococcic, Puerperal, Traumatic, and Fetal Peritonitis, Tuberculosis of the Peritoneum, Thrombosis and Embolism of the Mesenteric Vessels, Diseases and Injuries of the Great Omentum, and Tumors of the Peritoneum.

There are 230 illustrations, many of them splendid drawings by Tom Jones.

There is a select and comprehensive bibliography at the close of each chapter. Eight pages are devoted to pain and seventy-one to appendicitis.

Many of us may not agree with the writer when he expresses his lack of faith in the Fowler position. He says, "Fluids are absorbed with equal rapidity from all parts of the peritoneal cavity." His physiology may be correct but the position may still be a valuable one for other reasons.

The description of puerperal peritonitis is especially vivid and will not easily be forgotten. One is left a little in doubt as to whether there is not a mild cynicism in the statement that, "The chief indication for operation in acute peritonitis is the arrival of the surgeon."

"As ordinarily employed the so-called cigarette drain is equal in efficiency to a sterilized corn cob" meets with our approval.

There is much to commend and nothing to criticize in these volumes. The author has definite opinions and does not hesitate to express them.

The style is charming and the pages are enlivened by anecdote, story and pointed illustration. They may well be used as a model for other writers because of their painstaking care, studiousness and evident love of the work for its own sake.

Henry F. Graham.

PULMONARY TUBERCULOSIS.

PULMONARY TUBERCULOSIS. By Mauriee Fishberg, M. D. Second edition, revised and enlarged. Phila. and New York, Lea and Febiger, 1919. 744 pp. Illustrated. Plates. 8vo. Cloth, \$6.50.

This new edition of Dr. Fishberg's work reiterates those views of the author well emphasized in the earlier book. The value of the home treatment of tuberculous disease here in the city of New York, under surroundings where it was formerly thought unwise to even attempt it, the absolute need of home treatment for domestic and financial reasons, and the results obtained, actually and comparatively, are well set forth. This implies and necessitates on the part of the author full knowledge and fair consideration of all remedial measures, including climate, good air, diet, specific therapy, surgical operation including artificial pneumothorax and medicinal agents. After the recent engorgement of the public with the ideas that drugs are useless, and that climate, with stuffing with eggs and milk, constitute our complete armamentarium; it is pleasant to find all our means of relief impartially studied and their distinctive values stated.

The differentiation of tuberculosis infection and tuberculous disease, again merits well, all the reiteration it receives, under, Etiology, Pathology, Diagnosis, Prognosis and Treatment.

In the diagnosis of the disease, fair importance is given to each of the methods, to the futility and danger of searching for pathognomonic signs, or trusting to any single method, to the necessity of using all methods, estimating most highly, perhaps, in the recognition of actual disease, the constitutional symptoms. The value placed on the use of the x-ray in diagnosis indicates the correctness and conservatism of the author's views. "Skiagraphy, while a very important aid, can not be relied on to the exclusion of other methods" (p. 313).

The entirely new chapter on differential diagnosis is a worthy addition to the book. The author's optimism in prognosis has firm foundation despite such an unwarranted statement as the imperative indication for abortion in every pregnant incipient case (p. 519). Even the professional in general is apt to forget that phthisis is curable in any stage of the disease.

Influenza appropriately receives more attention, gangrene of the lung, appendicitis, the laryngeal complications are more fully described and illustrated and tuberculosis of the pleura is inserted in this edition.

This book is well made, the illustrations are good, the work itself is timely, is sound in view, thorough in presentation without verbosity, and in its emphasis of old established facts as well as recent ideas on pulmonary tuberculosis, should continue to prove of great assistance to the physician.

T. A. McG.

RULES FOR RECOVERY FROM PULMONARY TUBERCULOSIS.

RULES FOR RECOVERY FROM PULMONARY

TUBERCULOSIS; A LAYMAN'S HANDBOOK OF TREATMENT. By Lawrason Brown, M.D. Third Edition, thoroughly revised. Phila. and New York, Lea and Febiger, 1919. 192 pp. 12mo. Cloth, \$1.50.

The reviewer saw much of Dr. Brown at Saranac Lake. Dr. Brown is a keen observer and an authority on tuberculosis. His writings are expressed in straight from the shoulder language. This little book, of which this is the third edition, is written in extremely interesting style and although prepared especially for the layman, physicians will be benefited by reading it.

It was written to avoid blunders easily made at first through ignorance. It gives the main principles of the cure and the reasons for each rule.

Some of the author's important statements are: The most sanitary cleaning method is the vacuum system. He advises against alcohol in the treatment. American sanitariums prohibit alcohol. The roof is better than the back yard for treatment. The number of germs and quantity of dust decreases with the elevation above the street.

There is no danger for the patient with pulmonary tuberculosis so great as that contained in exercise. Some patients become slaves to their thermometer "Trouble Sticks." In these cases the thermometer should be put away and used only when the patient feels sick.

The most efficient methods of preventing tuberculosis now are: strict protection of infants in the first few years of life and the maintenance, especially from the fifteenth to the thirtieth year, of the individual's resistance to disease. Regarding tuberculin treatment, he says: "In a small number of patients the results have been remarkable; another small group cannot tolerate it; the vast majority experience little benefit." Moses Kahn.

SYMPTOMS OF VISCERAL DISEASE.

SYMPTOMS OF VISCERAL DISEASE. A Study of the Vegetative Nervous System in its Relationship to Clinical Medicine. By Francis Marion Pottinger, A.M., M.D., LL.D., F.A.C.P. St. Louis, C. V. Mosby Company, 1919. 328 pp. Illustrated. Plates. 8vo. Cloth, \$4.00.

This book is a study of the Vegetative Nervous System in its relationship to clinical medicine. Since the appearance of the English translation of the work of Eppinger and Hess on Vagatonia in 1915 this subject has received a great deal of attention. To most of us it has been very difficult to accept much of what has been written on the subject without a great deal of mental reservation. Particularly difficult has been the acceptance of the symptom complexes attributed to either Vagatonia

or Sympathicatonia because the symptoms which were alleged to be referable to either condition seemed so manifold that it was difficult to obtain a clear idea as to just what was meant. In other words, if the condition described were not Vagatonia then it must be Sympathicatonia.

The author has devoted much time and study to this very important and difficult subject. He urges a better correlation between clinical medicine and the various specialties together with the laboratory.

He discusses the relation of the diseases of the various organs to the Vagatonic system and their interpretation from a neurological and clinical standpoint.

The anatomy and embryology of the Sympathetic and Vagatonic System is clearly described so that the relationship to the viscera is more readily understood. The book is well illustrated by numerous drawings and diagrams well executed and correlated with the text, and the bibliography is extensive.

On the whole the work is a distinct contribution to the subject and well worth reading. It is of distinct value to the internist as well as to the neurologist.

S. R. Leahy.

GERIATRICS.

GERIATRICS: A Treatise on Senile Conditions, Diseases of Advanced Life, and Care of the Aged, by Malford W. Thewlis, M.D. St. Louis, C. V. Mosby Company, 1919. 250 pp. Plates. 8vo. Cloth, \$3.00.

From the pen of Thewlis of Wakefield, Rhode Island, has come a worth-while octavo of 250 pages on old age. It comprises a series of thirty monographs, incomplete in many details, but interesting and informative nevertheless. The literary style is disappointing, there is needless repetition of certain geriatric principles, and an incompleteness in the handling of many of the themes. The majority of the incidental case reports are remarkably brief and do not reveal the thorough and exhaustive study that is usual in clinical medicine to-day. Laboratory resources appear not to have been utilized to the utmost. These faults detract from the value of the book considerably, yet old age is deserving of such attention and study and the author's discussion of his subjects brings out so many points of practical usefulness that the reviewer would urge its reading by those engaged in practice among the aged.

The scheme of the book is well conceived, and the chapter topics are well chosen, carrying the reader through the realm of senility and its diseases. Mentality, dementia, diet, constipation, intestinal toxemia, arteriosclerosis, nephritis, diabetes, bronchitis, pneumonia, gangrene,

prostatic hypertrophy, urosepsis, senile climacteric, epithelioma: these are some of the subjects discussed in short interesting chapters, in which the handling of the questions is clinical, rather than after the manner of a text-book. Certain of the chapters are written in almost a "popular" strain and suggest that the original material may have been used for other than medical audiences. This, the reviewer suggests, should be remedied in a future edition, and the tone of the work raised to such a scientific height as the importance of geriatrics would warrant.

The author properly emphasizes the underlying principles of old age. He stresses, for instance, the importance of recognizing that senility has a normal physiology of its own and that there is a normal degeneration of old tissues, warning that this must not be interpreted as pathologic. He calls attention to the facts that albumen, casts and leucocytes are normally present in the urine of old people, and blood pressure is frequently elevated without pathologic significance. He is sympathetic with the psychology of old age, and appreciates the necessity of only slightly modifying the dietary habits fixed by years, the advisability of stimulation, and the wisdom of keeping of the aged out of bed, lest the patient be discouraged and accept "approaching death."

These and many other points repay one for browsing in the pages of this book.

Frank Bethel Cross.

CORRECTION OF SPEECH DISORDERS.

A MANUAL OF EXERCISES FOR THE CORRECTION OF SPEECH DISORDERS. By May Kirk Scripture, B. A., and Eugene Jackson, B. A. Philadelphia, F. A. Davis Company, 1919. 236 pp. Illustrated. 12mo. Cloth, \$2.00.

There can be no doubt in the mind either of the general practitioner or the pediatrician that the subject of disorders and defects of speech has not received the attention that such an important matter merits.

Few general or children's hospitals have even a pretense of a department to treat such cases, and they have allowed to work out their own plan of procedure, without any intelligent advice or supervision on the part of the clinic or physician first approached for consultation.

Most physicians have a vague and fragmentary knowledge of even how the subject should be approached, and it is a relief to come across a work which at once inspires confidence by the very way the authors state their views in the introduction.

It contains "*Ten Comandments of Speech*" which may be read and obeyed by ninety-

nine out of one hundred persons who presume that their articulation and enunciation are quite proper. Stress is laid on the importance of starting the young child off properly by teaching him the correct work for each object, avoiding "baby talk" and slang.

It is unquestionably much easier to teach children their first words and sentences correctly than to have to break them of incorrect speech mannerisms later on.

This is a book which cannot help but interest and benefit any one interested in the care and welfare of children.

W. H. Donnelly.

A TEXT-BOOK OF UROLOGY.

A TEXT-BOOK OF UROLOGY IN MEN, WOMEN AND CHILDREN, including Urinary and Sexual Infections, Urethroscopy and Cystoscopy. By Victor Cox Pedersen, A. M., M. D., F. A. C. S. Phila. and New York, Lea and Febiger, 1919. 991 pp. Illustrated. Plates. 8vo. Cloth, \$7.00.

This is a book of one thousand pages filled with a profusion of classified information. One-half of the text is given to minute detailed discussion of the urethral and sexual organs; their pathology, diseases and treatment, not only in men but also women and children. The remainder deals with lesions of the bladder and kidneys with many pages devoted to urethroscopic and cystoscopic procedures. As a text book of urology it is lacking in some respects, as there is no discussion of varicocele, hydrocele, chancroids, or bubo. A few pages only are devoted to the management of prostatic hyperthrophy, and none at all to testicular diseases. The style is often tiresome to wit:

"In the syringe and catheter method following the same introductory steps the catheter enters the bladder, which is again washed and filled ready for the patient to retroject his own canal under Nature's pressure during urination." In these busy days why not fill the bladder and let him P?

Again: "Passive turgesence is seen usually caudad to an obstruction, etc. Active hyperemia is seen cephalad to stricture, etc."

Again: "Pain in urology is a symptom concerning which four factors must always be elicited: what, why, where and whither." Why omit a When? It surely belongs with its alliterative brethren and the time of a pain, before, during or after micturition is of diagnostic significance.

The really useful, interesting and valuable part of the book is that given to the discussion of Gonorrhoea. There is an immense amount of information concerning the methods of making a diagnosis; the treatment is described carefully step by step, and the standard of cure is set forth.

Emphasis is made that gonorrhoeics should not receive a clean bill of health unless the serum test is negative and from two to five prostatic secretion specimens, taken at different times, are free from pus and gonococci.

The discussion of the use and value of hydrotherapy, electrotherapy, heliotherapy and diathermy in the treatment of chronic gonorrhoea is new and interesting. The chapters on General Principles of Diagnosis and Treatment are entertaining and informative.

The book is well worth a place in your library.
Sturdivant Read.

HYGIENE AND PUBLIC HEALTH.

HYGIENE AND PUBLIC HEALTH. By George M. Price, M. D. Second Edition, thoroughly revised Phila. and New York, Lea & Febiger, 1919. 280 pp. 12mo. Cloth, \$1.50.

It is a difficult task to condense such a large and comprehensive subject as Public Health and Hygiene into a pocket size volume. Nevertheless, this has been accomplished in a remarkable manner by Dr. Price in his work, of which this issue is the second edition.

Naturally the text is condensed, with a consequent absence of fine details which must be sought in a large reference work; on the other hand, the excellent arrangement with a skillful use of paragraphing and capitals make it easy to obtain the outline of any desired section of the subject.

There are ten chapters, apart from the introduction, and the titles of these are as follows: Housing Hygiene, School Hygiene, Industrial Hygiene, Public Water Supply, Food Supply, Milk Supply, Disposal of Waste Matter, Public Nuisances, Prevention of Infectious Diseases, and Federal Hygiene.

A feature of value to the students is a list of questions at the end of each chapter covering the material discussed in that particular chapter.
W. H. Donnelly.

PRINCIPLES OF NURSING.

THE PRINCIPLES OF NURSING. By Charlotte A. Brown, R. N. Phila. and New York, Lea & Febiger, 1919. 262 pp. Illustrated. 12mo. Cloth, \$1.75. (The Nurses Textbook Series.)

This is one of the smaller books on the subject of nursing which have appeared in the past year.

Its style is simple and lucid and it is practical, first and last, without involvement either of subject matter or of diction. The author seems to have carefully avoided the unsettled and somewhat confusing sub-

jects of metabolism and assimilation. The clinical side of nursing is emphasized, and the technic of the many bedside measures which belong to the nurse's domain is tersely but clearly set forth.

A glossary is appended, and this is perhaps more important than is generally supposed, as technical terms are often very confusing to the pupil nurse, even terms which are familiar and apparently simple to the physician or hospital graduate. It may then be said that this is an elementary text book containing a synopsis or resume of nursing in such a simple and short form as to be easily digested by even the youngest hospital probationer.

W. H. Donnelly.

CHEMISTRY FOR NURSES.

A TEXT-BOOK OF CHEMISTRY FOR NURSES. By Ferdus N. Peters, A. M., Ph. D. St. Louis, C. V. Mosby Company, 1919. 302 pp. Illustrated. 12mo. Cloth, \$1.75.

It cannot fail to strike both the teacher of nurses and the reviewer of books, that every year and every month seems to make harder the way of the nurse in training in regard to the number of subjects and amount of theoretical knowledge she is expected to learn.

Books on *Materia Medica*, *Principles and Practice of Nursing*, even the *Ethics of Nursing* come in floods from the press, and if now the student nurse, hours off duty, and in the evening when tired out mentally and physically from a long day in the wards or operating room, is to be obliged to listen to lectures and read text books on Chemistry, we may reasonably expect some form of protest.

This volume is carefully prepared, excellently set up on the best quality of paper, freely illustrated with diagrams; the text is sensibly paragraphed and each chapter has at the end an exercise for review.

No objection can be found to the work per se, in fact it is a really commendable one, but it is a debatable question whether the student nurse is not having too much reading thrust upon her, as part of her graduation requirements.

W. H. Donnelly.

SUMMARY OF REPORT.

Of Lieut. Commander William Seaman Bainbridge on "Medical and Surgical Developments of the War," by
Eliza M. Mosher, M. D. . .

* A special number of the U. S. Naval Bulletin was issued early in 1919, consisting of a report on "Medical and Surgical

Developments of the War," by Commander William Seaman Bainbridge of New York City.

Dr. Bainbridge, who has served in the Navy Reserve as Lieut. Commander since the United States entered the war, was commissioned in December, 1917, by the Surgeon General of the United States Navy to survey the warring countries in order:

1. To record the surgical lessons of the present war based on the experiences of our Allies.
2. To secure anything likely to be of value to the United States Naval Medical School, Washington, D. C., or helpful in the preparation of medical men and hospital corps men for active service.

To accomplish this, Dr. Bainbridge worked with the armies in the field, and then with this first hand experience weighed results and methods, so as to record and report them. Thus his report is of such value that it should be read by every physician and surgeon in America. It contains a concise and condensed medical and surgical epitome of the wonderful work done from the battle line all the way back to the base hospitals.

The printed report is illustrated by more than 200 photographs and drawings showing hospital ships and railway trains, surgical dressings and appliances, wounded men before and after operations, etc. Methods of treatment, both medical and surgical, are outlined in chronological order showing the great advance made between the early days of the war and its close.

Although this war has been a dreadful school in which to learn, this survey demonstrates the fact that the lessons taught have not been lost. The world will be infinitely better cared for medically and surgically hereafter, because of the intensive study carried on during the four years of tragic training.

The Treatment of War Wounds

Dr. Bainbridge's chronological table of the treatment of war wounds is both interesting and instructive:

1. The period of ordinary antiseptic agents; second half of 1914 and first half of 1915.
2. The period of wound drainage combined with antiseptics, 1915.
3. Introduction of hypochlorites, later in 1915.
4. Evolution of the Carrel technique of intermittent wound instillation, early in 1916.
5. Ascendency of Bipp method, 1916.

* This summary is published simultaneously in the October number of the *Charlotte Medical Journal* and the *Woman's Medical Journal*.

6. Period of approximately equal use of Morison and Carrel methods, 1916-1917.

7. Prominence of flavine and colored wound paste, such as brilliant green, 1917.

8. Progressive general adoption of wound excision method (which had its beginning early in 1916), late in 1917.

9. Period of primary wound suture, immediate or delayed, 1917-1918.

10. Period of attempted selection, adaptation and standardization, late in 1918.

Before devoting twenty-five pages to a description of the Carrel treatment of wounds with minute and explicit directions regarding the method, and sixteen pages to other methods the results of which are worthy of record, Dr. Bainbridge gives the following summary as the last word in surgery of wounds.

"Under favorable conditions, primary union by immediate or delayed suture of war wounds, which have been operated upon and properly purified, is now the last word in this branch of surgery. Experience in the world war has taught entirely new lessons to the surgeons, who found themselves confronted with unprecedented conditions both in regard to the masses and classes of war wounds they are expected to handle. Perhaps the most important lessons of all with the closest bearing on wound treatment in general, consists in the recognition of the fact that antiseptics are inefficient without the most careful and thorough mechanical purification of the wound including the complete removal of all dead or nonviable tissue."

"Strong antiseptics, such as were used early in the war in the expectation of arresting sepsis, were fore-doomed to failure as a result of unprecedented bacterial contamination of war wounds sustained in the germ laden battle fields of Flanders."

"The period which has elapsed since the infliction of the wound thus become a factor of great prognostic importance, while delay means danger. The wound may be sutured, even after three or four days delay, with the same favorable results as obtained by immediate suture."

According to Sir Anthony Bowlby, "No definite rule can be laid down as to the lapse of time after which suture should not be done, but the sooner a wound can be operated upon, the greater is the probability of success. As a matter of fact, it is not advisable to close war wounds involving extensive lacerations or complicated fracture cases, for all oozing from the wound must have ceased before a successful suture can be applied. Circumstances alter cases and the best treatment for a given wound rests with the surgeon in charge."

"It goes without saying that the ever present contingencies of infection and supuration are materially lessened by the early performance of complete wound closure."

"Scrupulous asepsis is the imperative condition of all wound suture, immediate or delayed. While thorough in the removal of all hopelessly damaged tissue, the excision should be as conservative and restricted as possible.

"Secondary wound suture is recommended at the earliest possible date where primary suture could not be applied. Only those war wounds are now left open in which there is an association of anaesobic and streptococcic infection."

In justice to the method of primary suture, it should not be attempted in very large wounds with irregular tracks nor where there is extensive shattering of bone. "In fracture cases the importance of complete fixation and immobilization from the earliest possible moment cannot be overestimated."

In conclusion it may be said that this procedure has come to stay, and that with the reservation of its three requirements, viz. an experienced operator, a convenient locality, and sufficient time—the adoption of primary wound suture will be steadily extended. It is imperative that the operator be one who knows how much tissue to remove. If too little be removed death may result; if too much, a mutilation which is sometimes worse than death."

Anaesthesia

"War surgery is demonstrating more clearly than has ever been appreciated in the past, the close relation between anaesthesia and the extent of mortality and morbidity." Major Marshall, who spent more than three years in an active part of the forward area, stated it as his conviction, that the bulk of preventable deaths at a casualty clearing station was due to giving the wrong anaesthetic, or to giving the right anaesthetic wrongly.

The various types of anaesthetics used were:

1. Local and regional.
2. Gas or oxygen (with or without ether.)
3. Oral.
4. Spinal.
5. Rectal.

"Local Anaesthesia," was used in many centers successfully even for major operations.

"Gas and Oxygen," was the method preferred when local anaesthesia could not be used, and it is believed by those who had to do with large numbers of desperate cases that, as compared with other anaesthesia, it lessened mortality and reduced morbidity. It was proved to be of special value in chest and abdominal surgery.

"Oral Anaesthesia," was introduced by Captain James Gwathmey and Captain T. Kassner—both of the medical corps of the United States army. It was found entirely safe and was not followed by nausea or vomiting. Its effect lasted but a short time, which rendered it especially valuable

for short operations and painful dressings. Supplemented by a hypodermic of morphine, or a little ether inhalation. It proved of great value when the movement of patients with fractures was undesirable and it economized the time of surgeons materially. The formula use was as follows:

Peppermint water.....5 minims.
Ether4 fluid drachms.
Liq. Paraffine4 fluid drachms.

"Spinal Anaesthesia," with a 4% Novocain sol. was much used for wounds of the lower extremities and for painful dressings below the waist-line. preliminary dose of morphine was found valuable for its psychic effect."

"Rectal Anaesthesia," was employed where long operations with plastic work on the head and face were necessary. In such cases it was found of special value, but it was not advisable to use it when there was difficulty of respiration."

Joint Lesions

Dr. C. Willems, in a report of the work done by the Belgian Military Hospital at Hoogstade, claimed such remarkable results in joint lesions that, although skeptical, Dr. Bainbridge made the journey to Hoogstade to see the cases reported.

Dr. Willems has given up the immobilization of joints after injury; on the contrary, he begins active movement of the joint at once.

"The motions must be carried out by the patient himself; they must involve those muscles ordinarily used in moving the joint; they must be begun the moment that the patient comes out of the anaesthetic; they must be carried out to the point of their maximum excursions, and they must be as nearly as possible continuous; they should not be supplanted by nor combined with passive motions."

"These movements cause practically no pain unless they produce displacement of a large fragment of bone, in which case such movements are contraindicated."

"This method calls for the constant supervision of a trained attendant, and its success depends to a large extent on the courage and co-operation of the patient as well as on his power of co-ordination."

"The details of the treatment vary considerably according to the nature, extent, and location of the injury.

We shall look forward with interest to the appearance of Dr. Willem's new book on the subject, which he promised to publish after the war.

Fractures

Early in 1919 the death rate in some classes of compound fractures was appalling, but owing to the improved methods this has been greatly reduced and a con-

trast between the morality and morbidity then and now is gratifying.

"Immediate immobilization, the use of a Thomas splint or some modification of it, careful splinting so as to allow of no grating of bone ends, the removal of foreign bodies introduced with the projectile, and the importance of not disturbing the injured parts are urged. The extent and character of the operative interference; whether antiseptics should be used at all, and, if employed, which is best; and the kind of splint which should be used after the case leaves the casualty clearing station are as yet matters of varying opinions."

Trephined Cases

These unfortunates have been found a difficult lot to deal with. "At schools and farms for re-educating the mutilated, and elsewhere, it seemed useless to try to help these men. Some get a little better after a while if left alone," according to Prof. Babinski, one of the greatest neurologists in the world. He advised operating, however, in all cases where symptoms of brain pressure persist.

Amputations

The following is the consensus of opinion among surgeons, as far as Dr. Bainbridge was able to judge:

1. No amputation should be sutured primarily. When a man is seen with a good stump and there has been a primary suture, there has no doubt been needless removal of part of the limb. Always conserve length of the lever. Primary suture does not do this.

2. Early secondary suture, after smears show less than one per field of bacteria, then suture. Never suture, however, when there are streptococci, no matter how few.

3. Never do Chopart's amputation. You can never get a good apparatus to fit it. There is always a shortening of the tendo-Achillis. If the tendo-Achillis be cut, the part is much weakened, so never employ this operation.

4. A Piregoff amputation is not good. Syme's is best.

More important directions for making specific amputations are given in the light of results of war work and various appliances are described.

The Red Cross has done a highly valuable work in providing artificial limbs for soldiers and stands ready today to furnish limbs or give any aid needed in these cases.

Plastic Surgery

The subject of plastic surgery has long been one of great interest to Dr. Bainbridge, and probably no surgeon in America has done more successful work in this line than he. The twenty-seven pages he has given

to this subject with the illustrative plates makes this report one of great historic and practical importance.

"Restorative surgery today in the broad sense of the term includes plastic work in many lines, such as bone grafting, the restoring of nerve continuity, tendon transplanting, and implanting of adipose tissue to fill bone and lung cavities; but perhaps the most gratifying results have been obtained in cases involving the restoring of the jaw and the remedying of gross defects of face and mouth."

The large number of post war facial deformities to be operated upon has made necessary, as Dr. Bainbridge foresaw in 1918, open wards and special hospitals for these patients in all the Allied countries, where the best plastic and dental work possible can be done. "In some cases," Dr. Bainbridge says, "the treatment will require years to complete."

Trench Fever

A vital medical problem for a long time confronting those responsible for the health of the armies abroad has been what the British have termed "P. U. O." (pyrexia of unknown origin). Comparatively recently the louse has been definitely incriminated as the carrier of the disease, and through this discovery a long step forward has been taken towards the elimination of much serious illness and disability resulting from this cause.

Probably at no time since the dawn of medical science have medical men with as many honorary letters after their names as Colonel G. A. Moore, C. M. G. D. S. O. D. D. M. S., and Major Sir David Bruce, K. C. B. M. D. L. R. S. A. M. S. given intensive study to so small and disgusting an insect as a louse. The task of eradicating the army of lice invaders was almost as gigantic as that of defeating the Germans, and yet as the carriers of trench fever, typhus, and relapsing fever of which 20,000 cases occurred in one British army corps alone in the twelve months ending April 6th, 1918, they proved a formidable source of numerical loss of man power of the army.

"When the problem of louse eradication is considered, it is to be remembered that the soldier himself is the chief cause of infection. As Dr. Peacock says, 'The louse is a parasite which is dependent utterly upon man's body and clothing for prolonged prosperous longevity and reproduction.' They are spread chiefly by contact, crawling from soldier to soldier, and leave the human body only when the surroundings are warm and moist, as in bed. The louse can live ten days at longest when unfed, and according to Warburton, the nits can remain dormant when away from the body for not more than forty days. The nits may survive freezing, but when they are kept dry and away from the body they usually begin to shrivel up in a few days. The eggs are laid chiefly in the seams of the clothing, being found in greatest

numbers in the underclothing and in the fork of the trousers. They are laid also on the body hairs, and the infested parts or even the whole body may have to be shaved in order to prevent a rapid reinfection.

The multitude of remedies suggested for the eradication of lice proves that no adequate insecticide has been found. Many of these mitigate the evil, but are impotent to remove it.

"When a complete disinfectant plant can be established, with baths and laundry facilities, freeing men from vermin is comparatively simple. They are usually treated in groups of 20 to 100. The station is divided into two sides, clean and unclean, these two sides being separated on the outside also by a high wall. The men strip when they come in and hand all their belongings to an attendant, to be taken to a disinfector. The men then bathe, are shaved or receive a hair cut, when necessary, and after due precaution are transferred to the clean side where they receive their disinfected garments. As far as possible, care should be taken to keep the clean men from mixing with the unclean, and new men coming into a unit should be inspected before being allowed to come into contact with the other men."

*The discovery of lice as carriers of typhus and relapsing fevers is only second in importance to that of the mosquito in the causation of malaria and yellow fever.

8-12-18

Care of the Wounded from Firing Line to Convalescent Camp

Through the courtesy of Director General Godwin and his aides, Lieutenant Commander Bainbridge was able to observe every step in the history of the wounded man from the moment of receiving first aid until he was either restored to military duty or discharged as unfit for further service. He followed the stretcher from the battlefield through regimental aid post advanced dressing station to ambulance, by field ambulance to main dressing station, through casualty clearing station ambulance train, through stationary hospital, by ambulance transport to England, and by ambulance train to the base or special hospital, and finally to the convalescent camp. One of the most frightful happenings was the bombing of a hospital in which both officers and men lay in fracture apparatus. Wounded officers, who could stand shelling in the trenches and never feared going "over the top" became very panicky under hospital shell fire. The rule was to put cotton in the ears of all patients on arriving to save them anxiety.

Major Lockwood's advice in regard to shock was, "Control hemorrhage and do necessary splinting early. Never use stimulants. Quiet and external heat are the best restoratives. At times salines under the skin may be useful, but these must be given carefully. There have been cases, he told Commander Bainbridge, in which sloughing of

the breasts occurred due to hypodermoclysis. Bicarbonate of soda and glucose by rectum proved an excellent support to the patient's vitality.

Dr. Bainbridge's description of English and American ambulance trains is very interesting. Each train had 16 cars, 10 of which were ward coaches. The normal load of patients in such a train was 118 lying and 462 sitting cases. Usually a Captain or Major was in command with a Lieutenant as assistant, and there were two medical officers, two trained nurses, four orderlies, one quarter-master, two sergeants and three corporals. It was found that operating rooms were not needed on these trains.

The transfer of patients to the boat at Dover and later from boat to train was accomplished with system and despatch, and the men were carefully moved and most kindly treated; every effort was made to keep up their spirits; a victrola entertainment them and some played games. They were not allowed to smoke, because each man wore a life belt which was very inflammable. A small stretcher cart was used for the transfer to trains. This not only added to the comfort of the patient but also relieved the stretcher bearers. Bearers should not keep step, it was found; as it shakes a patient too much.

At all the stopping places by the way women of refinement—volunteer workers—were in waiting with a dainty tray for each wounded soldier. On each tray were sandwiches, coffee, strawberries or other fruit, a lump of sugar and cigarettes—even a handkerchief and a few flowers were often added. Every man walking or on a stretcher received a cheering word of welcome.

At Dover the patients were classified and distributed to the hospitals best suited to their special needs. On arrival a post card was given to each to be sent to his next of kin announcing his arrival and telling how relatives might obtain half rate railway ticket to visit him, if unable to pay the full fare.

Dr. Bainbridge made a careful study of the work done in all the great hospitals in England, France and Belgium, and reported the special features which characterized each. He gave a very interesting and instructive account of the splendid work of our own distinguished American surgeon, Lieut. Col. Geo. Crile of Cleveland, Ohio. A year before American entered the war Dr. Crile went over to cooperate with British surgeons, taking with him a hospital unit. He gave to Dr. Bainbridge an extremely valuable summary of the lessons learned from the war.

Convalescent Hospitals and Camps

In order to relieve the general hospitals, and to hasten the return of men to the battle front, four large convalescent hospitals and camps were established early in the war. Men able to be up and about were sent to

these where they were given remedial exercises, apparatus work, massage, etc., to fit them for the hardships of army life. At the Kings Lancashire Military Convalescent Hospital, Blackpool, Col. Barron, a London physician, introduced an apparatus for the treatment of flat foot, which Dr. Bainbridge says should be placed in every hospital and gymnasium in civil as well as in military centers. It consists of a ladder like appliance placed horizontally upon the floor or ground with rungs especially adapted to the exercise of the plantar muscles. 20 to 30 minutes exercise upon this ladder once or twice daily for three weeks practically cured every case of flat foot.

Military Orthopaedic Hospitals

"It is to the conservative trend of modern surgery that the extension and development of the field of orthopaedic surgery is to be attributed. Not only are amputations and mutilations of many kinds avoided through a timely recourse to orthopaedic methods of treatment, but permanent bodily deformities and functional disablements are prevented."

"It is a significant fact that on Jan. 1st, 1918, there were in the 16 orthopaedic hospitals in Great Britain and Ireland upwards of 15,000 wounded men and of these 75% eventually returned to the army."

The Re-education of the Disabled

"In former times men who had lost limbs in the service of their country were given such surgical treatment and meager equipment as the times afforded. After this they were turned upon the community with a pension in a soldiers' or sailors' home."

In this day no enlightened nation would be satisfied with so limited a course. Economically such waste of man power would be unthinkable; ethically the failure to recognize a wider responsibility would be inexcusable. In addition to surgical care and the best possible artificial limbs, the disabled men must be given,—first, functional re-education in order that he may make the best possible use of the unharmed muscles and of the new apparatus; second, vocational re-education that he may become economically independent in case he cannot return to his former occupation.

Experience in England and elsewhere has shown that it is unwise to leave functional re-education to the time after the wounds have entirely healed. Habits conducive to helplessness and reliance on others have been formed, and the self assertion and energy necessary to the overcoming of his difficulties are hard to arouse in a seriously maimed man.

"The method of immediate mobilization finds a promising field in the majority of

the ordinary wounds of war. A very responsible part of the treatment devolves upon the physician in charge at the outset. The patient must be taught the performance of the active movements needed to maintain the teamwork of the muscles.

Dr. Bainbridge had a large number of photographs taken of the re-education work rooms in schools and elsewhere in the Allied countries. The 35 of these given in his report should be of immense interest and value to those who are conducting re-education work for our crippled soldiers in the United States. The earnest eagerness in the faces of these men at work learning new ways of making themselves useful is truly remarkable, when one remembers that they must go through life shockingly handicapped.

The Surgeon General of the Navy asked Lieut. Commander Bainbridge to make suggestions and recommendations, based upon his first hand information of conditions, to aid in the future development of the medical and surgical care of the American army in the field. These were given in a confidential report which accompanied the one here inadequately reviewed. That Dr. Bainbridge's service to the Government during the war has been of value is demonstrated by the fact that he has had conferred upon him the rank of Commander.

*The United States Naval Medical Bulletin is published by direction of the department for the timely information of the Medical and Hospital Corps of the Navy. Subscriptions should be sent to Supt. of Documents, Government Printing Office, Washington, D. C.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

CEREBROSPINAL FLUID IN HEALTH AND IN DISEASE. By Abraham Levinson, B. S., M. D. St. Louis, C. V. Mosby Company, 1919. 231 pages. Illustrated. Plates. 8vo. Cloth, \$3.00.

PSYCHIATRIC-NEUROLOGIC EXAMINATION METHODS, with Special Reference to the Significance of Signs and Symptoms. By Dr. August Wimmer, Authorized Translation by Andrew W. Hoisholt, M. D. St. Louis, C. V. Mosby Company, 1919. 177 pp. Illustrated. 8vo. Cloth, \$2.00.

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A SYMPOSIUM

on

COMPULSORY HEALTH INSURANCE

presented before the

MEDICAL SOCIETY OF THE COUNTY OF KINGS

October 21, 1919

ALEXANDER LAMBERT, M. D.

President, American Medical Assn.

MR. PRESIDENT and Gentlemen of the Medical Society of Kings County:

Forty-eight hours ago I found my name on your printed program as giving an address tonight. This was the first intimation I had that such was expected of me. To give an intelligent address on a subject as big and technical and as controversial as Health Insurance is today requires long and careful preparation, and that I have not been able to give. While an extended address is impossible, there are certain salient features of the situation which should be emphasized.

A recent paper read at the last meeting of the New York State Medical Society makes one realize that the medical profession must soon choose between some form of State Medicine with many physicians on a salary or some form of health insurance with physicians living under free choice of physician by their patients and retaining in a modified form their present methods of practice. Both schemes will give the requisite care to the sick in the community. Some form of health insurance is the only method yet suggested which will give the necessary economic support to the family when the calamity of sickness cuts off their income. As long as sickness is supported as an individual calamity, families of small means will continue to be pushed down to lower levels of living when sickness falls upon them and their poverty changed to destitution. Only by treating sickness as a group or a communal calamity through some form of compulsory insurance can the economic situation be adequately met.

The medical profession has always been intensely individualistic in resenting group action. The growth of the communal idea in society will soon force the profession to meet new social ideas at least half way and cause the members of the State Medical Society

to desist from their present foolish ostrich-like attitude of refusing even to discuss health insurance. Thrusting the head in the sands of prejudice leaves the flanks exposed and renders the position both vulnerable and speedily untenable.

Sickness Insurance differs materially from Workmen's Accident Insurance, because sickness insurance must be locally applied and locally controlled, while accident insurance is of State-wide application controlled from any center in or outside of the State. Hence in dealing with sickness insurance the County Societies must be willing to assume two responsibilities:

1. Local decision and control of medical fees charged for insurance work in order to obtain justice for their members;

2. Local judgment and control of their members to see that the proper medical standards are maintained and fair service given for fees charged. This means that the medical profession must be made to clean its own house when necessary in some analogous manner as the legal profession now does.

The fallacy that medicine is practiced as a right after a degree and license is given by the State must be changed to the realization that the State permits as a privilege certain qualified persons to practice medicine and that privilege can be modified by the State.

I leave others to discuss in full the many details of Health Insurance and the wisdom or unwisdom of its adoption. I have from the beginning endeavored to rouse the medical profession to a realization of their dangers and responsibilities and like all men so doing I have succeeded in rousing bitter anger against me personally. That but shows how really full of human nature the medical profession is. But remember, gentlemen, if we do not accept our social responsibilities and control them we will be forced to accept the control of non-professional tribunals and be governed by them instead of governing ourselves.

GRANT C. MADILL, M. D.

President, Medical Society of the State of New York.

One of the great compensations of being President of the Medical Society of the State of New York is the privilege of going about through the state and meeting the members of the medical profession. I assure you it gives me great pleasure to be present this evening and meet the members of the Medical Society of the County of Kings.

The Medical Society of the State of New York has never had so many great and complex problems to face as it has at present; and never did a President of the State Medical Society require such wise counsel.

I am very glad indeed to come to Brooklyn to talk things over with you, and listen to what the doctors of the Kings County Medical Society want. The medical profession feels that it has very serious and great problems to solve. The medical profession is not alone in having great problems to solve. Scarcely have the echoes of war died away when we enter a new strife. The world is in a condition of unrest and discontent. It looks sometimes as if the governments of the different nations might possibly break and go to pieces. The State, as we have known it, looks as if it might dissolve into labor unions, councils, committees and organizations of this character.

There is a great demand for class legislation. It all represents a re-adjustment, and as this re-adjustment goes on, it looks as if there were at stake and might be lost, all the advances that have been gained by the slow progress of centuries.

I wish to touch on a few of the problems that the State Medical Society is vitally interested in and which will come up for consideration and action during the coming year.

I shall mention, first, the Medical Practice Act. This bill was introduced in the Legislature last year which failed of passage, but it will undoubtedly be reintroduced at the coming session of the Legislature. This bill is known as the Medical Practice Act, or the Registration Bill.

I have found, in discussing this question with various members of the profession, that they quite approve of the annual registration of physicians but as a matter of principle, are opposed to the assessment of \$2.00 which is proposed to be taxed on each regular practitioner of medicine when he registers annually. The matter of annual registration and taxation of the practitioner of medicine is not exactly an experiment. Veterinary medicine and dentistry have had a similar law which has been in practice for some time and I have yet failed to find a member of either of these professions who has any objection to it. In fact, they are satisfied with it, approve of it and believe that it has succeeded in ridding these professions of the quacks and charlatans who prey upon the public.

Personally, I am in favor of this bill and I think that we might be content to pay the annual tax of \$2.00. I realize that the medical profession is burdened with the matter of registration, the making of reports, etc., but this bill will, in the first place, protect the public from irregular practitioners, and, secondly, it will protect the medical profession. It would seem as if the Attorney General's office should protect the public and guard the medical profession from this class of irregular practitioners. It would seem that we are entitled to this protection. It is my judgment that the medical profession should favor the passage of this bill.

Another question which confronts the medical profession is the matter of diagnostic clinics in which group diagnoses shall be made. You in the large cities, perhaps, have no need for this form of practice. The diagnostic clinic, however, will, I think, be demanded, particularly in the smaller cities and rural communities. People of means who can afford to call upon an expert for an investigation and opinion do not need it. The poorer classes, however, really very frequently do not have the benefit of expert advice and investigation. I think these diagnostic clinics could be arranged in all rural communities, villages and cities. In most all the smaller cities throughout the state there are hospitals and specialists. There may not be specialists in all lines of medical practice, but it could be arranged that specialists from the larger cities would attend clinics on certain days in the smaller towns and give the public—the people who are not able to have the benefit of it because of their inability to pay—the assistance and advantages that accrue from this sort of advice and investigation. In this way, I believe group diagnostic clinics might be established. I would be in favor of this if some plan could be arranged whereby it might be successfully carried out. I would not be in favor of it, however, unless it could be arranged so that, after the investigation is made by the expert, the patient is

returned to the general practitioner for treatment. This will benefit not only the patient, but the general practitioner himself will have the benefit and advice of the expert in the treatment and management of the case. I do not believe that the expert in any diagnostic group should be exploited at the expense of the general practitioner.

A resolution was adopted at the regular meeting of the State Medical Society (the Chairman of the Committee presenting the resolution being Dr. James F. Rooney) in the matter of a Bureau of Legislative Information. This resolution will come up for action at the special meeting of the House of Delegates to be held in November. I will read this resolution:

"1. That, as first recommended by me (Dr. Rooney) in 1915, at the annual meeting of this body, a bureau of legislative information be instituted, with its office at Albany, under the direction of the Committee on Legislation, for the purpose of collecting information from all sources relating to the medical profession, public health and other movements affecting the general public welfare. This Bureau will serve as a central point for the dissemination of all facts relating to the medical profession throughout the state and will be a continuing source of information for all members of the State Society. It is proposed to secure and keep on file at this office copies of all laws or proposed laws of every state in the Union, in order that full information may be had of any measure affecting the public health or medical profession for immediate use.

"The location at Albany is necessary because of its central character, its proximity to the Legislature and to the State Medical and Law Libraries and the Educational Department.

"The estimated cost for the initiation of this enterprise is approximately as follows:

Salary of executive officer	\$1,500
Cost of quarters	600
Furniture and equipment	800
File clerk and stenographer	750
Total	\$3,650

"It is not impossible that quarters may be secured in the Educational Building without cost to the Society."

I believe this Bureau would be of very great value to the State Medical Society. You probably know that frequently it is just by chance that certain bills affecting the medical profession, and the public as well, have been introduced without the profession at large, and even the chairmen of the various committees interested in legislation pertaining to medicine, knowing anything about them. With some one constantly in attendance at Albany and keeping in touch with the legislative bodies this could not be.

The next question which I shall touch on is the matter of Compulsory Health Insurance, the subject of your symposium this evening. I do not believe that in the history of the medical profession, certainly in this state, has the feeling been so intense about any subject since thirty years ago, when the Code of Ethics was discussed. The older members of the Kings County Medical Society will recall those days. The feeling was intense. The feeling is very intense about this matter of Compulsory Health Insurance now.

Before I take up this subject to discuss it I wish to state what I believe the position of the State Medical Society in this matter to

be. Those of you who were Delegates at the annual meeting in Syracuse probably recall the resolution which was proposed by Dr. Halsted, the President of the Society, and adopted by the Delegates present. However, I shall read this resolution simply to recall it to your memory:

"The Davenport-Donahue Compulsory Health Insurance Bill passed the Senate by four votes, but was finally defeated in the Assembly. It received the full support of the Democratic Party and of certain Republican Assemblymen, but not enough of the latter to carry the Bill through. It is the first time in the history of the United States that any Compulsory Health or Social Insurance Bill has passed any house of any State Legislature, and failed in finally becoming a law, because of the large majority in the Assembly of the party opposed to that of the Governor advocating the law. It came so nearly becoming a law, in spite of the combined opposition of a united medical profession, the Manufacturers' Association and other powerful opponents of Compulsory Health Insurance, that the subject has become one of immediate practical importance, and one, which, in my judgment, cannot be longer successfully fought by a mere blind opposition. The general medical profession of the state, to exert a real influence on public opinion, should, it seems to me, exhibit a spirit of being ready to consider the subject from all sides and then be ready to express an opinion which is based on sound and convincing arguments that will carry weight not only with us, but with the public.

"My recommendation is that, before taking final action, the subject of Compulsory Health Insurance be referred by this body to a committee to study it with special reference to its relationship to the medical profession and report back to a special meeting of the House of Delegates called this fall before the next meeting of the Legislature.

In the meantime the whole profession will have had time to consider the matter. If a Health Insurance Bill is to be enacted, as in my judgment one will be in the near future, it would seem the part of wisdom and common sense that we should, before such a bill becomes a law, say under what conditions the medical profession will serve, rather than to wait until the Bill is a law and then take what is forced upon us, as was the case in Germany, England and other countries, greatly to the detriment of every one concerned."

Dr. Halsted appointed as members of the Committee the following:

Harvey R. Gaylord, M. D., Chairman, 113 High St., Buffalo.

Grant C. Madill, M. D., President Medical Society of the State of New York, 92 Caroline St., Ogdensburg.

Thomas H. Halsted, M. D., Ex-President Medical Society of the State of New York, 831 University Block, Syracuse.

Joseph B. Hulett, M. D., President First District Branch Medical Society of the State of New York, 18 Orchard St., Middletown.

Frederick C. Holden, M. D., President Second District Branch Medical Society of the State of New York, 198 Lincoln Place, Brooklyn.

Luther Emerick, M. D., President Third District Branch of the Medical Society of the State of New York, Saugerties.

Thomas A. Rogers, M. D., President Fourth District Branch of

the Medical Society of the State of New York, 42 Cort St., Plattsburg.

C. Massillon Lewis, M. D., President Fifth District Branch of the Medical Society of the State of New York, Vernon.

R. Paul Higgins, M. D., President Sixth District Branch of the Medical Society of the State of New York, 20 Court St., Cortland.

John H. Pratt, M. D., President Seventh District Branch of the Medical Society of the State of New York, Manchester.

Albert T. Lytle, M. D., Secretary of the Committee and President, Eighth District Branch of the Medical Society of the State of New York, 200 Lexington Ave., Buffalo.

J. Richard Kevin, M. D., Chairman Committee on Legislation of the Medical Society of the State of New York, 252 Gates Ave., Brooklyn.

Henry L. Winter, M. D., Chairman Committee on Medical Economics of the Medical Society of the State of New York, Cornwall.

Arthur W. Booth, M. D., Member State Board of Medical Examiners, 222 West Church St., Elmira.

George W. Kosmak, M. D., Chairman Committee on Legislation of the Medical Society of the County of New York, 23 East 93rd St., New York City.

John A. Lee, M. D., Chairman Committee on Legislation, Medical Society of the County of Kings, 23 Revere Place, Brooklyn.

James F. Rooney, M. D., Chairman Committee on Legislation, Medical Society of the County of Albany, 355 Madison Ave., Albany.

Walter H. Kidder, M. D., Secretary of the Medical Society of the County of Oswego, 37 West Cayuga St., Oswego.

Sigmund S. Goldwater, M. D., Medical Director Mt. Sinai Hospital, 100th St. and 5th Ave., New York City.

I think the action of this Committee has been misunderstood. The Committee, I may say, has undertaken to study this question of Compulsory Health Insurance from every possible angle. There has been a feeling, I think, that the Committee is in favor of Compulsory Health Insurance. This is unfair. There are some men, members of this Committee, who have considered this from the point of view of adopting some form of Compulsory Health Insurance, but I know of no men who have ever come together, to study any question, who have undertaken investigation of a subject, so unbiased, as has this Committee. There seems to have been a feeling on the part of a good many that any man who discusses or thinks of Compulsory Health Insurance from any point of view except to oppose it, is a traitor to the profession. This attitude is scarcely what one would expect from medical men, scientifically trained, who are accustomed to look at questions from all points of view. There may be an honest difference of opinion on this question.

What the report of this Committee will be, it is impossible for me to say, as we expect to hold several meetings before the report is finally adopted. The Committee has been disseminating no propaganda for public health insurance. With two or three exceptions, the members of the Committee have attended the meetings regularly.

It makes no difference what this report will be. Whether there will be one report, or whether there will be a minority report, it is impossible to say, but whatever the report of this Committee may be, it is up to the Delegates who represent the Medical Society of the

State of New York to approve of it by adopting it or disprove of it by rejecting it.

The Committee has looked upon this work as a duty placed upon it by the members of the State Medical Society, and I may say that when this Committee reports and the House of Delegates takes action, whatever the action may be, the officers of the State Medical Society stand ready to carry out the wishes of the organization. I believe that the State Medical Society is in a position, with its officers, to carry out any action that the State Medical Society wishes.

In various parts of the state, organizations have been formed to combat Compulsory Health Insurance. I think there is a tendency perhaps for the medical profession to take up this question as a matter of politics. Possibly the medical profession is justified in making a political matter of it because there is no doubt whatever that the bill is, and will be, a partisan measure. Just how far the profession of medicine should go into politics is a question. Personally, I think it is rather a dangerous procedure as it is possible for it to react to our disadvantage. The medical profession occupies a dignified position in the eyes of the public. We are, as an organization, small in the political sense and are amateurs in the game of politics. It is possible to enter politics so far on this question of combating Compulsory Health Insurance that it may act later as a boomerang. This, however, is for the medical profession, as far as the State Society is concerned, to decide.

The Medical Society of the State of New York, which was organized 113 years ago, is an organization, to which to belong ought to be the pride of every member of the medical profession, and which has stood for everything that is high and ideal. It has stood, first, for what would benefit the public, and, secondly, to protect itself.

I believe that, whatever the Medical Society of the State of New York decides to do in this matter of Compulsory Health Insurance, after the report of this Committee is submitted, the State Society with its machinery, is in a position to carry out the wishes of the profession in a dignified and honorable manner.

GEORGE W. KOSMAK, M. D.

Chairman, Committee on Legislation of the Medical Society of the County of New York.

After the very gracious introduction of your presiding officer, it would perhaps be out of place for me to make any further excuses. Nevertheless, I cannot help but refer again to my lack of preparation for this appearance before such a large assemblage and I trust that you will, therefore, accept what I have to say in the spirit in which I am attempting to say it.

The subject of Compulsory Health Insurance, as has already been stated by the President of the State Society, is perhaps the most important which has agitated the profession within the present generation. I hesitate to make any comparisons with that period which the doctor has referred to in which the discussion of medical ethics was the rock upon which so many friendships among members of the profession were wrecked, but I think I can safely say that within the past decade no subject has come up which has been so widely discussed and, I may say so widely misunderstood, as the subject of Compulsory Health Insurance.

I am often reminded in listening to the arguments for and against this proposition of a little story that some of you might have heard me tell before. The story is about a country judge who during the intervals of farming and various other duties that contributed to his livelihood, was accustomed in holding court to listen to the testimony in favor of or against the "criminals" of the little community in which he lived, most of whom were his friends and acquaintances. It was sometimes a difficult matter for the judge to decide because the relators may have been on good terms with him, and on one of these occasions the attorney for the defense (we might dignify him in this manner) told about all the favorable points with reference to a gentleman before the bar, and when he got through, the judge said, "Well, you're right." Then the attorney for the other side got up and presented all he had to say and made so much of an impression on the judge that the judge said, "Well, I think you're right." That immediately aroused a storm of protest among the others who proceeded to show the judge that he did not know what he was talking about when he agreed with both sides, and when he was through listening to these people he said, "Well, I guess you're right, too," and that is about the way some of us feel who have listened to the many arguments pro and con in the matter of Health Insurance.

I have been mixed up with this situation for several years and I have endeavored as a member of the Legislative Committee of our County Society to maintain a consistent attitude towards attempted legislation of this character.

The original bills introduced in an attempt to foist a Compulsory Health Insurance measure on the State were of such a character that they ought to have been and were, strenuously opposed. In their construction the medical profession was not called upon for advice and we made our fight at that time on the bills alone, although the tendency was to make a fight on the subject of health insurance. Subsequently these bills were modified and the last one which came before the Legislature was, as you know, entirely different from anything that had been attempted before. It became necessary for those who appeared on the floor of the Assembly Chamber in Albany to maintain a different attitude because the proponents of the bill had recognized at least some of the objections that had been made by the doctors and attempted to incorporate them in their latest and amended measure.

A great deal has been said in criticism of those, both in the profession and out, who are proponents of any Compulsory Health Insurance measure. Very bitter things were said against them. They were accused of being in favor of these things for personal reasons, or they were accused of being in favor of them because of the desire to get their names before the public and to pose as the supporters of the "poor and oppressed workers."

In my contact with the proponents of the measure I cannot say that I have been impressed in that way. These people seem to be just as earnest in their desire to have a measure of this kind as we have been earnest in our desire to oppose it, and for that reason I think we should have maintained towards them a more reasonable attitude and should have been ready to meet them on their own ground, and not with blind objections to everything that they pro-

posed, but with some attempt at constructive measures as substitutes for those which they had introduced.

What shall be the attitude of the medical profession towards a Compulsory Health Insurance system?

The question, I think, is a very difficult one to answer because we must regard it not only from the viewpoint of the doctor, but also from the viewpoint of the citizen.

Now, if the majority of the citizens of the state, or I might modify that and say, if the more influential minority of the citizens of this state, because things seem to go by minorities nowadays as well as by majorities, the Prohibition Law being a witness to that,—if that is the case, I don't quite see why we as doctors, forming but one portion of the community, should set ourselves with our ideas against the larger proportion of the community who may want a measure of this kind. That does not mean that we should put ourselves on the platform of the proponents of health insurance, but it should make us more guarded in our opposition to these measures and place us in a position to say that our opposition is not founded on mere blind objections, but that we have actually studied the measure and that we are in position to propose something which is better.

The opponents of the Compulsory Health Insurance measure (I want to speak of them first) are very fond of referring to our European conferees and their experiences with health insurance. It must be admitted that such experiences are often deplorable. The German doctors long ago went on strike, not in quite as theatric a manner, however, as the English profession. I think they were perfectly justified because the German health insurance laws whatever they may have done for those who benefited by them certainly enslaved the medical profession because they brought about a condition of contract practice which was a most deplorable thing for the profession of Germany. England tried to profit by this experience and substituted a measure of her own. It presented some points of advance over the older system, but it was still far from perfect, yet we find that in the case of the English profession a great change of mind has taken place, and many of those who so boldly opposed the measure at first gradually came around to see its advantages.

When the experience of the European countries was translated to our own, advantage was taken of these weaknesses and an attempt was made to substitute a measure which would be more in harmony with our professional ideals. I think that, in some ways, this has succeeded. In others it has failed.

I am sorry to say that the medical profession as a whole has done very little to bring about a better condition of affairs. The proponents of the bill have had to do the best they could to work out this measure without medical assistance and all I can say is if it does not suit us, it is largely our own fault.

We must remember that the progress of the day, the progress in science, the progress and changes in our social relationships, have brought about a different conception of the practice of medicine. We find that medicine in its scientific aspects has taken one course. We find that medicine in its economic aspects, especially as it affects the individual physician, has taken another course, and these courses have diverged and they are diverging more and more every day.

It may seem rather a broad statement to say that the individualistic practice of medicine is on the decline, but I think if you will study carefully what has taken place in the last few years, you will admit the truth of that statement. For example, the Board of Health, state, county and municipal, has taken away from the physician a great many functions, but in doing so it has made him a part of that necessary machinery which the Board of Health thinks it needs for the conservation of the health of the people of the state and of the community. In other words, the State has stepped into the private practice of the physician and compelled him to recognize certain rules and regulations which bring him into direct relation not only with his patients, but with the community as a whole.

Now, that sentiment can be developed even further, although I do not want to spend any more time in doing so, but it is a sentiment that we must bear in mind in considering these big movements which are going on about us and which must involve us in their workings. We simply cannot get away from it.

Having recognized that these changes are taking place around us and that our conception of the practice of medicine which we acquired 20, 15 and even 10 years ago, is gradually changing, shall we stand still and allow these movements to continue without taking some part in them?

Shall we maintain the attitude of the family practitioner, I might say, of twenty years ago, whose entire world was centered in the small circle of his patients, or shall we spread out and open our eyes to what is going on in a larger circle?

Now, this is not a plea, I want you to understand, for Compulsory Health Insurance. It is simply a plea for us as physicians to open our eyes and see what the practice of medicine is coming to before the close of the next generation and, gentlemen, unless we do that and unless we recognize these facts, all the blind opposition that we may have to this or any other legislative measure that attempts to limit our functions will be null and void. We in the profession should properly appreciate this situation. It is necessary for us to get together. Whether we get together in opposition or in support of this or any other legislative procedure is immaterial. The main thing is that we get together and that each individual recognizes his dependence upon this body politic.

We can only do that through the medium of something which will arouse our common interest. The attempted Compulsory Health Insurance Law has apparently done it. Now, whether it has aroused our interest in the proper way is something that must still be questioned. From what I have seen going on throughout the state, I doubt it. It seems to me that the profession has only aroused itself in a selfish manner. That has been the result of my observation among many men and in many localities throughout the state.

If you boil this health insurance matter down, it seems to be a question of the remuneration of the doctor. Now, that may sound harsh, but it is a statement which I think represents the real situation. I realize that ninety-nine out of one hundred men will say that they took up the practice or the profession of medicine as a means of earning a livelihood and the one hundredth man goes into the laboratory of the Rockefeller Institute, or some other institute, and is supported by it, and we envy him because he receives a salary-check at the end of the month.

We must not limit ourselves in our expressions merely to selfish considerations, but we must regard the practice of medicine in the broader aspects to which I have already referred.

I think it would be a rather broad statement to say that State Medicine is the medicine of the future. I doubt very much whether the day will ever come when the State will employ all the physicians who are to take care of the health of the community. I believe there are certain relations between physician and patient that must be maintained and I do not consider that even a measure of the kind which is before us for discussion tends to a form of State Medicine of this character, but I do believe that we are coming to a system in which every physician will be a medical officer of the State, not under salary, but because of his moral obligations to the community. That is being brought forward in a stronger manner every day in the way that I have pointed out in our relations to the Department of Health, to the University of the State of New York, and to the other legal bodies which govern the practice of medicine in every community.

In conclusion, I want to second everything that the President of the State Society, Dr. Madill, has said about the work of our Special Committee. This Committee is a large one. It was appointed, as he has told you, to study the subject of Compulsory Health Insurance. It was not appointed to propose legislation, and, without violating any confidences, I think I can safely say that no attempt has been made by the Committee as a whole, or by any of its members, to bring forward a measure as a substitute for the Davenport-Donahue Bill. Our function has been entirely one of a study of existing facts. It has been the aim of the Committee to bring these facts together in a formal report to be presented to the Delegates from the various county medical societies and for them to act upon it. The report will probably contain certain recommendations. Whether you care to act upon the same or not, of course, is a matter over which we have no control, but we shall consider our function as Committeemen finished when that report is presented.

Dr. Madill has referred to the political phases of this question as they relate to our profession. I fully agree with him in everything that he said. I think it would be a great mistake if we as a profession would do anything to further class legislation and to center our opposition or our support for any candidate for the State Assembly on the question of whether he or she is in favor of or against Compulsory Health Insurance. This would be a most vital error. It would bring us into associations which we ought to keep out of. It would lead to suspicions that we ought to keep away from. It would involve us in obligations that might prove very embarrassing in the future, and, personally, I trust that you will follow the suggestions of Dr. Madill as regards your attitude along these lines. Politics makes strange bed-fellows. We might place the emphasis on the word "strange," and if politics is going to make a bed-fellow of the medical practitioner, it seems to me that the word "strange" will be spelled in very large capital letters.

Mr. Chairman and members of the Medical Society of the County of Kings, I greatly appreciate the honor you have extended by asking me to speak on this subject. I trust that my remarks have not been too extended. I think that any one who has been in contact with the situation for several years will necessarily

see it from both viewpoints, and I only wish that every member of the Society would have the same opportunity because I think if they did they might be more charitable in their attitude toward the question. They would not be too ready to condemn everything that is brought forward, but rather to extend a helping hand and do what they can to settle this very important matter in a way that will redound to the credit and not the discredit of the medical profession.

WILLIAM L. HEEVE, M. D.

Brooklyn, New York.

The advocates of compulsory health insurance have selected as the topic for their main argument the catching phrase "Health Insurance," and they argue in harmony with the collectivist theories, popular with so many of the present generation. They are so determined to inculcate their theories in the minds of the people that they try to monopolize every avenue of thought or book of learning. *They have made an audacious attempt to force foreign ideas concerning compulsory health insurance upon the school child through the U. S. Bureau of Education*, which has issued two publications on "Lessons in Community and National Life," including a lesson on social insurance, contributed by John D. Andrews, Secretary of the American Association of Labor Legislation. To apparently give endorsement by the U. S. Government to a subject which has never been endorsed by even 10 per cent of the people, is truly the work of mischievous propagandists. Health insurance, we admit, has many good features, but as sickness is but one of the numerous calamities of life and complete disability sickness affects but 1.8% of the population and that the average daily sickness represents about 6.2% of the population, why must we have compulsory health insurance? We all know beyond the question of a doubt that non-employment, thriftlessness and poverty are potent weapons in dealing a death blow to the wage earner, but this is not covered by compulsory health insurance. Industrial medicine is not in the domain of compulsory health insurance, as that requires special training of the doctor, industrial medicine is a specialty not in the hands of the general practitioner. Why take the topic "Health Insurance," so nobly conceived and miscarry it by an ecboic like the Davenport-Donohue bill? The advocates of compulsory health insurance, many of them prompted by worthy motives, have caused two questions to come to the front: First,—Shall the wage earner give his body in health or disease, to a politically controlled board or commission, with patronage to be dispensed by ward healers, and submit to their dictations, thereby losing his very independence, compelling him to be subservient to an authority by State control? It is the nature of men in authority, placed by government law, when even a slight degree of power is so delegated, to have a natural tendency to increase that power and authority, so that the purposes of the law in question may be achieved more completely.

Second,—Shall the medical profession also submit to the control of the stated politically appointed commission, of the type of the present industrial commission of this State?

Shall the profession be subservient to the politically appointed

medical inspector and their entire problems of economics be weighed, judged and finally passed upon by this autocratic court of last resort, the industrial commission? May I suggest Mr. James Lynch or Mr. Holland as chairman of that commission? These two questions are most vital, the first to the laboring men and the second to our profession.

First Question: If the laboring man is willing to submit to such autocracy, without just and fair deliberation with all the citizens or voters of our State by a referendum vote, then we must confess we have lost faith in the stability of the American laborer.

When the question of compulsory health insurance was placed before the voters of *California by referendum vote, they defeated the proposition by the ratio of three to one*, and we ask, in all fairness, that the question of compulsory health insurance be submitted to the voters of the State of New York. We are becoming tired of mandatory legislation, fostered by paid propagandists, who without allowing all the people to voice their approval or disapproval by referendum vote, enact laws which are contrary to the wish of the people.

We abhor the deplorable, but nevertheless the true tendency of the American public to believe the subtle theories of paid propagandists, without digesting these theories and analyzing the digested pabulum.

When disease enters the home and the fate of loved ones lies in the balance, are the laboring people willing to give these lives into the hands of an underpaid, underfed, overworked, unconscientious doctor, who has but a minute or two to spend with his patients? No, we cannot believe that the bread-winner of the home will submit to such abuse of privilege.

This reminds me of a story of the Scotchman who in commenting upon the story of Esau selling his birthright for a mess of pottage, in his excitement exclaimed, "I'll be damned if I'd sell my after birth for a mess of porridge."

Now to the second question, that which we, the medical profession, must deal with.

We as a body have spent much time in constructive medicine and surgical organization for scientific purposes and little or no time for constructive defense purposes against the selfish whims of paid propagandists.

Shall we allow these theorists to enter our sacred portals and with their destructive elements annihilate that which we have builded on solid foundation? There is absolutely nothing in the bill that tends to raise the standard of general medical practice.

On this very rostrum and within these same walls I still hear those well delivered sentences of our lamented friend and former co-worker, the late Dr. Bristow, in reading his essay entitled: "The Public and the Medical Profession," allow me to quote:

"Medicine as a profession has never been on a business basis. Not so long ago, not later than the last century, the practitioner scorned to charge a fee and accepted an honorarium. Many a doctor still practicing medicine, once considered it the height of bad form to send a bill oftener than once a year. Even today many doctors render their accounts semi-annually. We have been slow to change our old-fashioned methods and although the business methods of the whole world have been revolutionized, we still cling

to our medieval ways. Consequently we are actually being trampled under foot while modern business with its intensive methods and gigantic combination has swept by us and left us floundering and bruised in the dust, the victims of our own traditions.

If physicians would refuse to serve these various orders and contract companies they would soon have to go out of business, but the most necessary part of the remedy would be the loyalty of physicians to one another and at present such a thing does not exist.

We are engaged in a fierce and destructive, a demoralizing competition. That is what I mean when I say that we are blindly adhering to an outworn system. It is possible that for the general public we may have to re-organize our business methods entirely."

SEMPER FIDELIS

We are floundering and bruised in the dust, the victims of our own traditions just because the loyalty of physicians to one another is not an actuality. When we place the mantle of office upon our chosen one to lead us right and to advocate the principle of the body politic, in due assemblage adopted by resolution, we expect loyalty, but when the opportune time arises and such officer does not advocate the majority will of the organization, we are assured that such officer has betrayed his trust and broken faith with us. Sorely we feel and justly so.

UNITED WE STAND, DIVIDED WE SHALL FALL

The Workings of the Compulsory Health Insurance in Germany and Other Countries

The proponents of compulsory health insurance have claimed that the social and sanitary conditions have greatly improved; that the sickness and death rate have been reduced in the countries which have adopted compulsory health insurance. They have claimed that the physicians have received better incomes and are working under better conditions.

These statements are seriously misleading, in fact, they are wholly false. Both death rate and sickness rate have greatly increased.

The medical profession in Germany, before the war, was crying out bitterly against it, and Professor Shicks first assistant, stated that the economic condition of the general practitioner was in a most deplorable state, in fact most of them subsisted upon the incomes of their wives. At the present, post-war period, conditions are far worse. Physicians are leaving the profession and working at anything and everything to earn a fair wage.

Under the sickness insurance laws in Germany, there has been struggle after struggle over the rate of compensation to be paid to physicians. If one follows the subject of health insurance in the medical journals, he is led to believe that the principal difficulty with such insurance is the rate of physicians' compensation.

Quotation, New York Times, 6-1-19.

"To add to the German physicians' hardships, according to the *Kölnische Zeitung*, the national constitutional convention has approved alterations in the compulsory insurance regulations that will practically ruin the profession. The Cologne paper, as quoted in

the London Times, points out that before the war, the compulsory insurance scheme applied to the working class and to those whose earned incomes were less than \$625 a year. Persons who could satisfy the authorities that their earned incomes did not exceed \$1,000 a year, were permitted to join the scheme if they so desired. The fees which doctors received on behalf of these assured persons worked out to not more than 8 cents a visit, with the result that to make a living a doctor had either to undertake more work than his own health or his medical conscience could justify, or to increase his income by private practice."

The amazing thing in all this is that the very "sociological experts" who have maligned everything American and belittled their own country have served as most effective tools in propagating a belief in the superiority of that pompous, bombastic "kultur" which the German armies for nearly four years have endeavored, with revolting bestiality, to impose upon the world.

The same conditions exist in Austria, only more deplorable still.

In England we find the same protest from the average English physician. We must remember that in England the profession was always underpaid, in fact the English physician never received enough to keep body and soul together. Therefore, when the proponents of compulsory health insurance speak of the English physician receiving better pay, they are telling only part of the truth and not the whole truth, they have camouflaged the truth.

Brend (Health and State) has stated that the average time a physician gives to each visit is but three minutes. Dare they have the courage to call that scientific medicine?

It is a fact that in London today a great many of the individuals who are insured under this law decline to go for treatment to the district or panel doctor to whose services the insured individual is by law entitled, but prefer to go to the non-panel doctors in whom they have confidence. They know quite well that the true diagnostic resources of a physician cannot be given in an examination of a minute or two.

It is true that the bill as introduced and amended at the last session of the Legislature has the clause of "free choice" but it does not give the patient the right to change his physician at the patient's own discretion.

Olga S. Halsey stated, over her own signature, that one of the very grave defects of the British act is the fact it guarantees only "such treatment as is the kind which can be given consistently by the general practitioner of very ordinary professional competence and skill."

With such facts how can the proponents of compulsory health insurance prove that the health and medical care of the working man will be benefited by such an act?

UNDER INSURANCE TERMS AND CONDITIONS

(British Medical Journal, July 12-19.)

Reports of Group Conferences on M. 25

An answer to one of the Commissioners who stated "the adequacy of the insurance medical service was a matter of national concern, and the Government was asking the profession to help

in determining the lines of the best service that the country could afford to give." In answer to this question we note the following:

"Is there any one having experience in the working of the present Insurance Act who can say that any service based upon that Act can be the best that could be devised?"

"The present contract system for medical benefit has not been a success, and never will be, however it is modified. The principle is wrong. It destroys the sympathetic relationship which ought to exist between doctor and patient. Every doctor knows what I mean and every insured patient knows it well. As for it having secured an improvement in the health of the nation as a whole I do not for a moment believe it. I need not enlarge on this, though it would be quite easy to do so if required."

In Huddersfield this matter has been considered from the point of view of the health of the nation as a whole or, in words of the commission, "to help in determining the lines of the best service that country could afford to give," and we think that the following proposals would secure that result. An alteration of the health services of the country should secure:

PROPOSALS

1. An efficient health service, which would provide adequate sanitary housing and food supervision.

2. An efficient nursing service with an adequate supply of midwives.

3. An efficient service of clinical and pathological laboratories.

4. Residential institution for acute medical and surgical cases.

5. An efficient service to the poor.

6. A system of referees for insured persons.

7. That the present contract medical service should be abolished, and patients allowed to make their own arrangements as before the Act.

8. That the present arrangements for securing sickness and maternity benefits might be continued, with possibly a small contribution for the upkeep of the auxiliary services.

. This is the outline of the system suggested. It would free the medical profession, and bring out the best that is in it. It would free the insured population, would develop their self-respect and self-reliance and would save us from becoming a nation of "medicine drinkers," as at present we are fast becoming. It would also further simplify the present procedure enormously, and do away with all the proposed irritating and perplexing restrictions suggested in M. 25."

"In Warwickshire a Panel doctor performed an appendectomy, (an emergency case) with consent of Hospital Medical Staff, and he raised the question of charging a fee. The Panel Com. ruled that the Doctor could not charge an extra fee." (British Med. J. Aug. 23/19, page 64.

The British Panel physician receives 7 S. 2 d.—91½ cents for each insured person, annually.

Today they are demanding that the M. 25 give them 16 S.—\$2.00 which is the equivalent to the purchasing power of 7 S in 1912.

In Austria especially, previous to the war, the number of sickness days was increased from 9.6% to almost 16% and malingering was responsible for about 40% of that increase.

In England malingering has also greatly increased; so much so, that it is becoming a great problem with the funds.

Brend. ("Health and State," Chap. VII.) report; County of Ayrshire Insurance Com., based on an investigation as to the effect of National Health Insurance in that community, has been that "of persons examined over 39% were found fit to work, and of those who resumed work, rather than go before the medical referee, be included, the number who were found fit was increased to over 47%, nearly one-half."

In England where the women have entered the field of labor so largely, the days of illness, in general, have doubled in number. If the truth were known, and we shall shortly hear from Dr. Hoffman on that question, the cost of the British Health Insurance is rapidly rising to tremendous figures.

THE COST

As to the cost of such insurance we can only guess at it. If we take the figures of Mr. Dawson we find the cost very, very reasonable. Let us take for comparison the figures submitted by Mr. Dawson when he advocated the compensation act and compare them with the cost as presented today and we find that they are three and four times greater than the figures submitted at the hearing on that act.

In fact all the figures of cost then submitted have been blown asunder by the actual costs of today.

Therefore can we put faith in the estimated cost for Health Insurance as submitted by this gentleman today?

Dr. Goldwater in giving his costs, basing it upon 50 cents office fee, \$1.00 house call, \$25 for a major operation, brings his total to 31 millions.

The U. S. Bureau of Labor Statistics, spring of '19, reported that the average self supporting woman in the District of Columbia, required 50 cents per week, \$26.00 per year, for medical, dental and oculist care only, which is the equivalent of medical and dental service, multiplied by 4,000,000 employees, (as estimated by the proponents) making our figures equal 104 million dollars. Remember the self supporting woman in Washington has no maternity benefits and therefore in this \$26 we cannot include the \$64.00 for maternity benefit (\$8.00 per week, 2 weeks before and 6 weeks after confinement.)

The actual cost of Compulsory Health Insurance will be charged on the overhead, finally on the commodity. Therefore the consumer will bear the burden, not the employer. The employer never pays the cost; he does not worry.

Let us take a suit of clothes and trace it from the sheep to the consumer. We will consider the cost of Compulsory Health Insurance as 3% of the wage, which is a very conservative estimate:

The sheep raiser,	3%
Woolen washer and bleacher	3%
Woolen dyer	3%
Spinner	3%
Weaver	3%
Cloth sponger & finisher	3%

Woolen goods Commission Merchant	3%
Wholesale Tailor	3%
Retail Tailor	3%
Total	<hr/> 27%

Take note that we do not consider the buttons, button hole silk, the lining, or the thread.

If this one commodity alone, increased by the recent advance in wages of tailors, is now to be overburdened by the additional overhead expense of Compulsory Health Insurance in 9 different establishments, surely the consumer will be compelled to pay a fabulous price for a suit of clothes.

Dr. J. J. A. O'Reilly claims that the cost will be so great as to cause a deficit of \$95,000,000 annually.

Therefore how can we intelligently compute the cost? It is an unknown quantity.

Can the estimated cost of 3% of the wages as estimated by Mr. Dawson, supply sufficient income to meet this tremendous additional expense of the cost of Compulsory Health Insurance? Must the consumer in purchasing the necessities of life always be the goat? How long will the public stand this abuse?

In my opinion the money contributed by employer and employee (based upon 3% cost basis) will never meet the cost of Compulsory Health Insurance. Who will make up the deficit?

COMMISSIONS

The advocates of Compulsory Health Insurance are prone to refer to the Report of the Ohio Commission in their arguments, but if one will carefully search the cause of this report partially favoring Compulsory Health Insurance he will find that the Commission relied upon partisan writers on Compulsory Health Insurance, such as John R. Commons, Edith Abbott, Henry J. Harris and others.

In contrast to Ohio we find the Commission of Illinois, 1919, is opposed to Compulsory Health Insurance, and we find in the report much information contradictory to the arguments of compulsory Health Insurance.

Chicago shows that 56.1% of those losing wages, lost less than 10%, and 76.2% less than 20% of what their annual earnings would have been had they not been reduced by disabling sickness. Therefore those who lost wages, constituted 1/5 of entire group, 43.9% lost 10% and 23.8% lost 20% of what their earnings would have been.

We further find that those incapacitated:

20% will be disabled 1 week
 13% will be disabled more than 1 week, less than 4 weeks
 7% will be disabled for 4 weeks or more
 3.2% will be disabled for 8 weeks or more
 1.8% will be disabled for 12 weeks or more
 .6% will be disabled for 6 months or more

The Illinois Commission asks:

What has Compulsory Health Insurance accomplished in the countries where it has been adopted?

Answer:

There is no evidence that Compulsory Health Insurance has resulted in an improvement of health. The death rates and morbidity statistics of countries with no Compulsory Health Insurance show a decline as great as those with it.

The explanation is probably found in the fact that compensation for wage losses caused by sickness has a very minor effect upon health, that because of the freedom of choice of physicians for treatment the quality of medical service is not improved, that the advance in medical science, public health control, educational movements for better personal hygiene, and the many factors which have entered in the prevention of disease, have operated with equal, if not greater vigor in those countries which do not have Compulsory Health Insurance. *It seems clear that Compulsory Health Insurance is not an important factor in the prevention of disease or in the conservation of health.*

The Commission states that in their opinion, it will not reduce one-quarter of dependents on public charities.

Illinois Commission reports on the gross incomes of Chicago physicians as follows:

1% earn	\$ 1,000 or less
8.9% earn	3,000 to 3,500
7.3% earn	5,000 to 6,000
2.7% earn	10,000 to 12,000

Again, allow me to quote from the Report of Massachusetts Commission on Social Insurance of 1918:

CONCLUSIONS OF MAJORITY

"An analysis of the evidence reveals no growing demand in the Commonwealth for compulsory contributory health legislation. On the contrary, if we are to judge from the experience of the former Commission considering this question, there appears to be an increasing hostility to this type of insurance on the part of representatives of large aggregations of individuals who, in the final analysis, would be most vitally affected by such a measure.

The so-called compulsory contributory system of health insurance has few supporters. There appear to be two serious obstacles to the enactment of legislation of this character, namely, the united opposition of employer and employee to the scheme, and the difficulties presented by the constitutional aspects of the question.

The so-called non-contributory system has the endorsement of labor—a strangely apathetic one, however. *The majority of the Commission feels that it cannot recommend a plan of this character which is without precedent anywhere as far as it has been able to determine, and which is manifestly inequitable in its apportionment of the cost.*

We find among those who were formerly disposed to favor compulsory sickness insurance a growing suspicion, amounting to absolute conviction on the part of a few, that the compulsory feature of such insurance infringes on the rights of the individual. A study and comparison of the evidence presented to the former Commission and our own further confirms us in our opinion that there is much less inclination at the present time to look with favor upon compulsory health insurance in the State than was the case a year ago. Moreover, opposition to compulsory insurance, judg-

ing from the numbers present at the hearings and the nature of their testimony, appears to have been stronger this year than last. It is natural to assume that the medical fraternity is interested in raising the plane of the health of the community, but the majority regards it as significant that the profession *as a whole asks for no legislation.*"

May I voice my opinion that this proposed legislation will place the entire medical profession in bondage to the State and make it subservient to considerations of political policy?

If we are to remain silent on every public issue, just because we are professional men, if our lips are to be sealed, when conscience bids us speak lest we injure tradition, then rather let us migrate to a place, near or remote, where a doctor may live without forfeiting his self respect. Let us speak out in the open without fear lest some one take offense of the words honestly spoken.

Why are some of our leaders disturbed by the action of the Professional Guild of Kings County, why so sensitive? I know the reason, perhaps as well as they. We are fighting a battle which is your battle as well as our battle; we are representing the rank and file of the profession; we demand that you must show us that the public, all the public, not a certain partisan class, will fare better with Compulsory Health Insurance than they do now, and that our profession will receive an impetus for good.

The physician's chief duty is to relieve and cure the sick, he is not responsible for public health—that is the duty of the State.

When * * * * the change will amount almost to a revolution in our industrial system * * * * in public health activities and will cause an increase in tax burden never before heard of except in case of war, it behooves us * * * * to proceed with caution, and to insist upon the fullest consideration of a step which if once taken may be irrevocable, and if unwisely taken may be ruinous.

Advocates of the standard bill have had much to say concerning the simplicity of the language employed, and of the absence of involved and obscure phraseology, but such praise must be accepted with some qualification. At least a part of its apparent simplicity seems to have been gained by the avoidance of problems troublesome of solution, or by the use of general terms for the designation of functions which would show themselves to be incapable of practical application if they had been described in detail.

The healthy employee of careful habits, the employer and the State are all to be called upon to soften the way of the transgressor and to contribute not only to the medical care and treatment of the vicious and undeserving; but also to pay them a cash compensation equal to two-thirds of their wages during their enforced vacations.

JOHN J. A. O'REILLY, M. D.

Brooklyn, New York.

I want to tell you, Dr. Lambert, that there are no "Ostriches" in Kings County; they are all "Eagles"; a little bald-headed, some of them, but Eagles, just the same.

I want to say to Dr. Kosmak that Free Choice is just as much a part of the Davenport-Donahue Compulsory Health Insurance Bill, or any Compulsory Health Insurance Bill, as a Bathing Suit is part of the apparel of a Fish.

I want to say to Dr. Madill that the only Boomerang there is in this matter is Section 11 of Article 2 of the Davenport Bill which is the sign-manual of the dishonesty of the whole bill.

I want to say to all of you that this is Civics, not Politics; but if Politics be necessary to correct the Hysteria which is the index of Health Legislation in this State as presented by the forces of unrest then Politics it will be and make the most of it.

Even, and particularly, when sponsored by a Professor of Political Economy of a College which has recently been the recipient of a generous donation from the same Foundation which is helping finance the American Association for Labor Legislation (probably through Mr. DeForest as Liason Man, by reason of his Trusteeship of the one and Vice-Presidency of the other); even though made the subject of an Emergency Message of the Governor of the State of New York, *Compulsory Health Insurance* is an Un-American, Unsafe, Uneconomic, Unscientific, Unfair and Unscrupulous type of Legislation equalled only in viciousness and cowardice and contemptibility by the so-called Contraceptive Bill whose advocates and supporters were found to be the same group of Paid Professional Philanthropists, busybody Social Workers, Misguided Clergymen and Hysterical women (none of them with knowledge of or sympathy with the needs of the working people) who urge the enactment of the Davenport-Donahue Compulsory Health Insurance Bill, the only difference being the arrangement of their names in the Directorates of the various Associations.

You, Dr. Lambert, are charged with constructive knowledge and you, Drs. Madill and Kosmak, are charged with actual knowledge of the facts and figures which the *Public Health Committee of the Professional Guild of Kings County* issued in its work of educating the Doctors, Dentists, Druggists and the Public of this County in the Menace of Compulsory Health Insurance *because* a copy of our literature was sent to you and to the other seventeen members of your Special Committee of the State Medical Society charged with the duty of studying and reporting on this subject.

You are educated men and know the simple rules of Addition, Subtraction, Multiplication and Division and Simple Proportion as applied to the original propaganda of the A. A. L. L. which is reiterated in the June, 1919 number of their Review, Vol. IX, No. 2, as well as to the Analysis of the Bill and the claims of the propagandists contained in the Pamphlet, issued under date of Sept. 22nd, 1919 by the Professional Guild of Kings Co.

You are charged with knowledge that Compulsory Health Insurance is a debasing, wasteful, vicious plan; a Legislative Monkey Wrench which is to be cast into the Machinery of Society without regard to *any result* save that some politicians and some professional Philanthropists and Sociologists may get some jobs, and you know or *should know* that the cost to the State of New York in Money will be a *deficit bill* per Annum of \$95,316,178.00 upon a most conservative estimate and that the Cost in *morale* of the Professions which have to do with the care of Public Health and personal well being is incalculable.

You know or *should know* that you can not have *quantity-medicine* and *quality-medicine* at the same time: You know or *should know* that you can not buy, for \$3.23, which is all that is available under the Davenport Bill, the same Quantity and Quality

of Health Service and Supplies that costs \$24.74 per-person-per-year today.

You know or you *should know* that the Penalization of *Panelization* is the Prostitution of your Profession, the Pauperization of the People and the Profiteering of the Politician.

Like every other Citizen of the State of New York, lay and professional, you are charged with knowledge that the Law directs and demands that the "*ordinary meaning of words*" shall be the measure of the language of a Statute; that if Article 3, Section 30 of the Davenport-Donahue Bill be so interpreted the Annual Premium-per-average-man must be \$41.83 (not \$18.00) or 7½ cents of every Dollar he earns in order to comply with that provision and the provisions of the Bill relating to Cash Benefits, Reserve, Guaranty and Administration and to maintain relatively the same standard of Health Service and Supplies which the Citizens now enjoy. You must know and you *do know* that this cost would be prohibitive and if once understood by the Citizenry of New York State would kill the Bill over night.

You must know and you *do know* that if this Cost be not paid by the Insured it must be paid by the Insurer—the State of New York, or it will stand dishonored.

You must know and you *do know* that in order to reduce that Deficit of \$95,316,178.00 to \$9,251,753.00 you must apply the Pruning Knife along the line of Least Resistance—Not to the Cash Benefits and the Maternity Benefits and the Funeral Benefits; Not to the Reserve and Guaranty which we have figured as only one-per-cent, whereas Insurance Corporations must maintain twenty-five-per-cent; Not to the Cost of Administration and Supervision, Oh *no!*—the hungry politicians and the proteges of the Foundations; the graduates of their Schools of Philanthropy, Sociology and Psychology do not constitute the "*Line of least resistance*"; neither can you by *Fiat* Legislation alter the cost-per-person-per-year for Medical and Surgical Supplies for which the State now pays \$1.30 for its State Hospitals for the Insane unless you limit your *Materia Medica* to the cheapest and most inert substances: *There remains only* those men and women who have given their lives to the study and practice of Medicine, Dentistry, Pharmacy and Nursing and whose work in the Office, the Home and the Hospital has heretofore had all the inspiration of a Sacred Institution.

You must know and you *do know* that the mere investiture of a man with the office of Doctor, Dentist or Druggist does not raise him above the level of the ordinary laborer so that he will not *react to his environment* and manifest his discontent, due to confiscation and moral debasement under the operation of such a law, in an impairment of the work of his heart and hand and mind.

We want you to carry away with you the consciousness that in Kings County there are *live* Professional men with enough intelligence, enough back-bone, enough red-blood, enough loyalty to their patients and the public to spend their time and money and energy educating themselves and their patients and friends to the menace of this type of Destructive Legislation; with enough moral courage to respectfully demand that their representatives be heard; with an organization sufficiently strong to make that request heard; with enough Unity within that organization to bring to this Hall

tonight, members of this Medical Society of the County of Kings prepared to introduce and *pass* a resolution

Instructing the delegates from this society to be consistently continuous in their uncompromising opposition to the Dav-enport-Donahue Compulsory Health Insurance bill, or any Compulsory Health Insurance bill and to demand a "Referendum" on Compulsory Health Insurance so that the people may have a chance to beat it as was done in California, 3 to 1!

Bidding those Delegates keep in mind that the honest minded citizen can not subscribe to or tolerate the principle of Compulsory Health Insurance because there is no Principle; it is All Interest and those most interested in it are the smug Uplifters, pungent with the odor of mock sanctity to cover the stench of the infamous Kultur whence this foul Legislation sprung from the conclave of the International Labor group of which this so-called American Association for Labor Legislation is an integral part.

Who wants this Legislation? Not Labor, for the representatives of the American Federation of Labor and the Brotherhood of Locomotive Engineers and the United Textile Workers of America have voiced their disapproval: Not the individual worker, himself, for he knows nothing whatever about it and is shocked and horrified when he is taught what it promises and what it can perform, and votes 12,785 to 112 against it as was the case among the factory employees of Utica. Not the Professions of Medicine, Dentistry and Pharmacy for they know that the plan will reduce their professions to the status of a Piece-Working Trade with a Foreman in charge of a Gang; Not the victims of the Workmen's Compensation Act with its blanket contract which enables one man to collect \$73,000.00 for 18 months activity as Padrone and raises the natural question how much of that goes to the man or men who made that blanket contract a possibility; Not the Insurance Companies for they know full well that the result in degenerated health and usefulness will injure them because *dead men pay no premiums; Just three groups want it*—the Politician who sees much fodder in the Public Crib for the Faithful to share; the Professional Philanthropists, Sociologists and Uplifters who yearn for Commissionerships, Deputy Commissionerships, Secretaryships and other euphemistically labelled berths and last but not least the crafty and the deluded disciples of Lenine and Trotzky whose Gospel is the Destruction of those things for which men have given their lives and among the unconscious abettors of those agents of Hell stand men of the Professions diverted from their functions as Guardians by a little cheap flattery; against these forces stands the rank and file of the Professions prepared to spend their time and money and energy to arouse Public Sentiment by Education, not agitation; by counsel, not coercion; by an appeal to their love and loyalty for those who in the hour of danger have never been found wanting.

Apart from those who *want* this wretched legislation, who *needs* it? The death rate in the dreadful epidemic of Grippe last year was not one whit larger among the poor than among the rich. Where is the workingman who receives this "\$2.00 per day" which the proponents of this bill say is the average wage of the average

man? The girls who paste labels on the Whiting Paper Company's boxes receive \$40.00 per week; the men who wash your windows get \$45.00 per week and are promised a \$5.00 raise in December; the Street railroad men are getting \$6.00 per day and extra for overtime; what does it cost you to paper your office, with paper-hangers at \$7.50 per day; the boot-black gets ten cents for three minutes' work; One dollar an hour and overtime is being demanded by many of the trades; even the Drug Clerks are clamoring for more money and the Doctors, in Ireland, where this Detestable plan is in force recently went on strike for \$35.00 per week.

Let us see if we can not join forces to introduce some *sanity* in our legislation; let us see if we cannot make some provision that the man of moderate means may have the benefits of advanced science without being penalized by the surrender of his family Doctor; let us see if we can not kill this pernicious legislation or give the citizens the *Rooseveltian Square Deal* by letting them have their say *in referendum* and let the Medical, Dental and Pharmaceutical professions, the Monitors of the Public Health, be a *unit* in educating the public up to this desideratum.

Disunion is the father of *Discontent* and the Grandfather of *Degeneration*; Let your attitude be uncompromising and let your action tonight clear the atmosphere on this subject. The Medical Profession of the State of New York is waiting and watching this meeting to learn if the moral courage of Kings County is capable of making good the Boast of its Professional Guild that here are men who love their Professions as sacred institutions and are prepared to fight for the conservation of the Public Health and will not accept in *compromise what they can not subscribe to in justice!*



HEALTH INSURANCE

IT is doubtful whether any issue that has ever been raised has affected the entire profession of medicine in this State, as has the proposed Compulsory Health Insurance law as embodied in the Davenport-Donohue Bill. For one reason the nearness of its passage, the active partisanship of the Governor and the thorough organization of its proponents brought home the uncomfortable conviction that the matter was one of unusual urgency. And again, the possibilities that the Bill contained after its analysis with the utter disregard for the present individual rights of practitioners of medicine emphasized the realization of the utter unpreparedness of the profession to meet assaults upon its established privileges. Superficial analysis of the points of view of those well informed and thoughtful men whose papers are published in the present number of the Journal, serves to bring into clear relief the two views which the medical profession entertain.

Upon the one hand is the attitude of the vast bulk of the profession which will have none of it at any price. Upon the other is the view that the socialistic trend of the times will enforce some type of compulsory legislation, and that, therefore, the profession must prepare a constructive program to meet changing conditions rather than to be swept away and engulfed by legislation that they cannot prevent. The whole proposition rests upon a theorem that is as yet unproved—the *principle of health insurance*. The proponents of health insurance argue:

First: That the self-supporting poor do not and cannot receive proper medical care; second, that they must have such care; third, that by cooperation such care is obtainable; fourth, that it is the duty of the State as representing society to provide the means for such care; fifth, that such care, leading to better health, would benefit society; sixth, that the medical profession must assume its share of responsibility; seventh, that contributions toward this desirable end must come from all classes; and eighth, that although injustice and hardship are in some measure inseparable, a plan can be devised that will affect all in the least unfavorable degree.

On the other hand there are certain inherent human qualities that are left entirely out of account in any such proposition which invariably seems to take for granted the mental, moral, intellectual and physical equality of all the units involved. As a matter of fact the items of ignorance, superstition, uncleanness, selfishness, dishonesty, untruthfulness, lust and human depravity generally, provide automatically a scale into which all human beings place themselves and the inherent inequalities that result make it impossible to generalize in any way so as to provide justly for every grade of society. The claim that society should provide a means of taking care of the sick poor merely because they are poor, and which leaves out of all consideration the large number of cases arising from voluntary subjection to unsanitary conditions and the attempt to saddle upon the thrifty, the intelligent and the clean, the results of voluntary degradation, is a fundamental fallacy which renders the "principle of health insurance" laughable if it were not so grim. It is doubtless a function of the State in the interest of self preservation to enforce such sanitary regulations as the Health Board is capable of: to provide education to offset the ignorance which is a basic cause for much ill health: and to enforce such police regulations as will best assure the safety of the community; but to provide free food, or free entertainment, or free housing, or free medical care, is the dream of Utopia, that never can be realized this side of the grave. And it is equally unfair and ridiculous to tax any portion of the community to provide all or any one of these accommodations even in part.

To argue for the *desirability* of health insurance or of some scheme whereby the highest type of scientific medical care can be provided for the sick poor is an entirely different proposition. It is already available for the pauper classes and for the well-to-do. It can be provided for all classes without injustice to any one if it be borne in mind that such service *must be paid for* so that he who renders it shall not be called upon to make an undue sacrifice: for the very proposition that demands this type of care for the poor predicates, that in relieving their hardships, no corresponding hardships shall be entailed; in other words, that if the State (which is to say

society in general) is to provide by taxation for necessary expense, it shall not entail an undue burden: that if the State undertakes to manage the distribution of such care, it shall do so in such a way as not only to provide care which is genuinely good, but it shall also so systematize it as to make impossible those opportunities for dishonesty and political manipulation which are only too prone to accompany State control; and furthermore it must be so managed that only those who are genuinely qualified shall receive help. It is an axiom that cannot be too often emphasized that what a man gets for nothing he undervalues—sunshine, fresh air and good water mean nothing until they are withdrawn. It is only too certain that medical care for which the recipient pays little or nothing would be both despised and abused and would in the end mean little more than a shifting of the burden which is at present carried by the Department of Public Charities and the privately organized charitable societies, to the shoulders of the people, and to that part of the people who are the least able to give more than they are at present giving, the already underpaid professional classes.

These are but a few of the reasons why any plan looking toward compulsory health insurance, or old age pensions or unemployment benefits should be most carefully studied by the entire people before they receive any legislative deliberation. There is little doubt that the active opposition that the profession has exerted since the last failure of the Bill to pass, has brought many of its undesirable features into prominent notice, but it demands full comprehension by every voter in the State before even a modified proposition providing some form of medical care for a limited district should be instituted even experimentally.

H. G. W.

HOW IT WORKS OUT

THE testimony of Dr. Mayer Wolff before the Commission that has been investigating reported abuses of the Workmen's Compensation Act, serves to call attention to one feature of that piece of legislation that every voter should be familiar with because it illustrates how easily any similar legislation may be diverted from its original intention and how readily commercialized to the disadvantage of two of the parties most deeply concerned in its workings, the medical profession and the workingmen. The objects of the Workmen's Compensation Act, in the minds of those who realized its possibilities for good, were to provide, first of all, immediate and adequate treatment for injury received during employment, and second, to provide a reasonable compensation for disability arising out of such injuries. It was realized that while many employers were ready and anxious to do everything in their power to give proper care for injuries received in their employ, there were yet far too many who refused to recognize their responsibility toward their workmen and were ready to shift the whole burden upon the injured employee; but in framing this Act the State permitted private insurance corporations to underwrite employers' risk and thus afforded a means of exploiting workmen's injuries for private profit.

As was quite natural under these conditions, the enterprising insurance companies succeeded in establishing a scale of fees to which they demanded adherence on the part of physicians who might look to them for pay for compensation work and they arranged with the

employers who were their policy holders that none but such physicians as were approved by them need expect to be paid for compensation work falling under their policies. Note that they did not forbid the employment of any other physician in so many words, but note also that physicians who refused to subscribe to their fee schedule were unable to get compensation work. Note also that the State Commission made it extremely hard for the ordinary man to recover adequate remuneration for Compensation work, an attitude that was justified by a former member of the Commission by the statement that physicians made unreasonable demands for their services and so showed themselves in an unenviable light. While it is doubtless true that some physicians endeavored to take an unfair advantage by charging for unnecessary calls, it must also be borne in mind that the vast bulk of the profession are honest and fairminded and that they should not be judged by the unscrupulous few.

It is at this point that Dr. Wolff and his system come in. As physicians little by little grew to realize that not only did they not receive adequate pay for compensation work, but also that they could not give the kind of care that they recognize as essential under the terms of the various insurance contracts, more and more refused absolutely to undertake compensation work and those who continued to do it, because of the delays in collecting their charges by the Commission, became discouraged and were soon ripe for the proposition which Dr. Wolff was ready to offer them—a fixed annual salary in exchange for all their compensation claims. In other words, it seemed a better proposition to count upon a thousand dollars a year that was assured rather than waste time and energy and patience in an endeavor to collect a possible eighteen hundred.

It is generally believed that Dr. Wolff has an understanding with the insurance companies which assures him a generous personal income in exchange for his activities, whereby his large staff of employed physicians are used to handle a share of the compensation work, for which, according to his published testimony, over seventy thousand dollars was paid last year and by reason of which he was able to report that the average cost of each case was about five dollars and fifty cents.

It would seem that Dr. Wolff has succeeded in enlisting a staff of men who are willing to sell their individual rights for a pittance, with two results: one that the entire profession of medicine has received a grave injury at the hands of its own members who cannot be characterized in print as they should be and whom the law protects from the treatment that should be accorded them; and a very large proportion of the working men whom the Act was intended to benefit are receiving treatment which in too many instances has to be supplemented out of their own pockets by properly qualified surgeons, while the money which their employers pay for better care fails to benefit them.

If the present activities of the medical profession can be properly systematized and a State wide organization effected it is greatly to be hoped that the present Compensation Act may be replaced by one that gives to the workmen adequate care and to the physician an opportunity to earn a living at the same time that he preserves his self respect. Compare this actual state of affairs with the utopian plans of the A. A. L. L. and it is easy to foresee what kind of health insurance may be expected.

H. G. W.



Society Transactions



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY

(Concluded.)

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, on Thursday, May 1st, 1919, at 8:30 p. m.

The President, Joseph P. Murphy, M. D., in the Chair.

FRACTURE OF SKULL. X-RAYS.

Thomas M. Brennan, M. D.

Dominick M., age 8, entered the hospital April 24th, 1918, having been struck and run down by an automobile, in the street.

Condition on admission: Unconscious, with an occasional inarticulate cry. Pulse, 60. Temperature, subnormal, and general symptoms of shock and head injury. There was a hematoma over the left parietal region and swelling and ecchymosis about the left eye. The pupils were equal, but dilated, and reacted sluggishly to light. There were no paralyses and no alteration in the reflexes other than the slight exaggeration. The patient vomited three or four times ingested food and mucus, but no blood. The hematoma spread, involving most of the scalp. The ecchymosis deepened about the left eye and involved the right eye. Discoloration appeared behind both ears. Stupor persisted, but at times the patient became very restless, tossing from side to side, and crying out. Spinal puncture showed macroscopic blood in the spinal fluid. He refused nourishment. Urination was involuntary and the bowels had to be evacuated by enemata. The pulse and temperature gradually improved, but the mental condition persisted without much improvement for six days until May 1st. He took nourishment in small quantities on the 27th. From May 1st improvement was rapid in every respect. He was allowed out of bed by the 18th and went home on the 24th, apparently well, except for weakness, anemia and occasional headache.

He has been well since, went through the summer, and is apparently well today.

The temperature amounted to 101 for two days, ran 100 with remissions for four days, and finally reached and stayed normal in twelve days.

OSTEOMYELITIS OF FEMUR. X-rays.

Thomas M. Brennan, M. D.

DR. FREDERIC C. PAFFARD:

"The doctor is to be congratulated on the result of this case, because it certainly did need a lot of work on his part. I never saw any child who had so many things at once happen to him as happened to this particular youngster, and I think if it hadn't been for the fact that he was very untiring in his efforts and if he had not had a great deal of faith in the ultimate outcome of the case, the child would have died. It didn't look as if he had any chance at all on several occasions and I think most of us would have been pretty well discouraged and let things go, but he kept right on after it."

DR. JAMES M. DOWNEY:

"There seems to be, in this case, infection of a hematogenous form, and I was wondering if there was anything along that line in the previous history of the child. How old was he? Did I understand you correctly to say he was 4 or 5 years of age?"

DR. THOMAS M. BRENNAN:

"He was 8 years of age. We found, in that case, streptococcus and

staphylococcus aureus. We had two blood cultures made, but there was nothing in the blood."

DR. JAMES M. DOWNEY:

"He didn't have a pneumonia, did he?"

DR. THOMAS M. BRENNAN:

"No. He had a pneumonia complication afterwards, during his stay in the hospital."

DR. FRANK D. JENNINGS:

"Was there previous history of tonsilitis in this case?"

DR. THOMAS M. BRENNAN:

"Simply injury."

DR. FRANK D. JENNINGS:

"Was the involvement of the lower epiphysis?"

DR. THOMAS M. BRENNAN:

"Just above the lower epiphysis—lower third of the thigh."

RUPTURE OF SPLEEN.

Thomas M. Brennan, M. D.

DR. FRANK D. JENNINGS:

"Why did you pack the omentum, for its hemostatic power?"

DR. THOMAS M. BRENNAN:

"Yes, for its hemostatic power, and because I thought it might hold the sutures tighter so that they would not tear through."

CARCINOMA OF PLYORUS. SPECIMEN. X-RAYS.

Thomas M. Brennan, M. D.

DR. FRANK D. JENNINGS:

"Why did you elect the Billroth No. 1 rather than the more recent Polya operation? You did an end-to-end anastomosis between the stomach and the duodenum, didn't you?"

DR. THOMAS M. BRENNAN:

"Yes, an end-to-end anastomosis. It was very easily brought into position. It seemed to be the simplest thing at the time that we did it. I did not feel that we wanted to do such a tremendous operation when I started. I disregarded the X-ray picture findings at the time, as it seemed to be an appendix and that seemed to me to be the simplest thing at the time."

DR. JAMES C. KENNEDY:

"How old was she?"

DR. THOMAS M. BRENNAN:

"Twenty-four."

MESOSIGMOIDITIS.

Thomas M. Brennan, M. D.

DR. FRANK D. JENNINGS:

"Was there any consideration given to the question of whether or not that was tuberculous?"

DR. THOMAS M. BRENNAN:

"No, doctor, other than looking for other tuberculous foci. There was an examination of the feces, but it showed nothing. The temperature ran a normal course."

GASTRIC PERFORATION BY FISH BONE. SPECIMEN.

Thomas M. Brennan, M. D.

DR. JAMES C. KENNEDY:

"The swallowing of a fish bone, I think, is a very common thing. Most of them are digested. A little while ago, at the New York Surgical Society, a man reported a case very similar to the one reported by the doctor, but a very much younger case. This fish bone seemed to pass clear through the

stomach and the stomach healed up after. There was a scar there, but the bone lodged some place lower down in the lower intestine and started up considerable inflammatory trouble and was removed from that location.

"I think it is a rare condition to have a perforation of the stomach by a fish bone. They are usually digested. It is a very interesting case indeed."

DR. ARTHUR H. BOGART:

"It might be of interest to report a case which I saw some years ago in the person of a child 9 years of age, in Bath Beach, who had an indefinite swelling in the upper part of the abdomen, as large as an orange, with temperature. The child had been sick for about ten days. It seemed to be an unusual condition and appeared to me like an abscess. He was extremely tender and, as I say, was running a temperature, and was sent to the hospital. We opened him up and drained the abscess. We simply found a mass of adhesions, and there were so many adhesions that you could hardly identify any of the structures. It was in the region of the pancreas and gall-bladder. He recovered from that condition. After a little while (about two weeks later) he was taken with an attack of appendicitis. I operated him again for the appendicitis. This time we found a pin in the appendix. I think it is fair to assume that that pin on its way perforated the stomach first and then started up this original abscess, became dislodged, made its way to the appendix and caused appendicitis. It is not a fish bone, but it is along the same line."

CARCINOMA OF STOMACH

DR. ARTHUR M. BOGART:

"How often do the surgeons get an opportunity of getting a case of carcinoma of the stomach early enough to perform a resection and relieve the patient. In my experience, it is very, very rare. I can report one case that I operated in January of this year, in which I did a resection of the pylorus and posterior gastroenterostomy, and that patient has since gained 24 pounds in weight. That is a rare case in my experience."

DR. JAMES C. KENNEDY:

"I agree with what the doctor has just said. I believe these cases of carcinoma of the pylorus are certainly neglected, either because of the fault of the patients themselves or the fault of the attending physicians. It may be the fault of both. At least, we can give temporary relief to these cases of carcinoma. The vast majority of them cannot be cured, however. We all know that. In support of that statement, I recently, at one of our conference meetings at St. Catherine's Hospital, reported the case of a woman who was sent into the hospital complaining of stomach trouble for nine months. She was a woman 62 years of age. She vomited continuously for six weeks, after complaining for nine months, and finally took to her bed—this just before coming into St. Catherine's Hospital, and she vomited continuously while she was there. She had been losing weight and when she got into the hospital she was in a dying condition from starvation. The tumor could be palpated over the pylorus. It was a good-sized tumor. She was so low when she got into the hospital that we couldn't even think of relieving her temporarily by doing a gastro-enterostomy, or attempting it with local anesthesia. We endeavored to feed her by the rectum a little bit, but didn't succeed. She died thirty-six hours after entering the institution. We all know there was a time when she could have been relieved somewhat. There must have been a time when almost any man could have diagnosed that trouble, but it wasn't nine months back. It should have been diagnosed early, as the doctor states, and, if so, she could have been relieved. Her life could have been prolonged by doing an operation such as the doctor did in this case.

"Our experience in that hospital is that these cases come in very late. I don't know how it is elsewhere."

DR. WILLIAM V. PASCUAL:

"I believe a good many of those cases are not so far advanced as they appear, but are in a very weak condition because of lack of nourishment. I operated on a case of quite an extensive carcinoma of the pylorus, doing a first-stage gastroenterostomy. I intend to wait a week before going ahead and completing the operation by doing a resection. This case looks ideal for a resection. He has involvement of the glands, but no extensive adhesions or involvement of the other viscera.

"I think if they are not allowed to go too long without food they come along in good shape.

"The case that I speak of gives a history of having had practically no food for about a month. I have had him under observation for a period of a week. A few tests have been made and he has been X-rayed. He showed almost complete occlusion of the pylorus.

"I think these cases look badly, but they are not as bad as they appear pathologically. They are in bad shape as far as nourishment is concerned."

MESOSIGMOIDITIS.

Thomas M. Brennan, M. D.

DR. JAMES M. DOWNEY:

"In that case of mesosigmoiditis I was wondering if an artificial anus would not have been of some benefit to the patient, and then he could have been treated by way of the artificial anus with irrigations which would probably lessen the inflammation and improve his general condition somewhat. I do not believe it could have been permanently cured. It seems to me that an artificial anus would have changed the stream and prevented the irritation and helped him considerably."

DR. JOSEPH P. MURPHY:

"I think we should congratulate the doctor on the good end-result which he obtained. The doctor didn't claim it was a successful operation. It is barely possible that in the manipulation of the mesosigmoid that he did something that caused a better blood supply to come to the part and in that way caused the resolution and cure of the inflammatory condition in the sigmoid itself. To me there doesn't seem to be any other reason or explanation as to how the cure was effected."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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3 PAGES

MAYO CLINIC PAPERS, VOLUME 10.

COLLECTED PAPERS OF THE MAYO CLINIC, Rochester, Minnesota. Volume 10, 1918. Phila. & London, W. B. Saunders Company, 1919. 1196 pages. Illustrated. 8vo. Cloth, \$8.50.

The standing of the Mayo Clinic is such as to command careful consideration of papers emanating therefrom.

This is the tenth volume of the publication and it really fills the place of a text-book, so varied and complete are the papers contained in it.

The main features of the work done at the Clinic are the many original investigations carried on, the vast amount of material available (4752 patients registered in a given month) and the completeness of examination and diagnosis by the group system. Most of the articles published in this volume have been read at medical meetings or printed in medical journals.

The book is well bound, the impression is excellent and upon a quality of paper well adapted for the reproduction of the many photographic illustrations in the text.

It may fairly be said to be one of the most important contributions of the year to medical literature.

W. H. DONNELLY.

ATLAS OF OPERATIVE GYNAECOLOGY.

ATLAS OF OPERATIVE GYNAECOLOGY. By Barton Cooke Hirst, M. D. Phila. & London, J. B. Lippincott Company, 1919. 292 pages. 164 plates; 46 figures. 4to. Cloth, \$7.00.

As is stated in the preface of this Atlas, "the author has attempted the graphic method of describing operations for conditions peculiar to women, by a series of colored illustrations showing the separate steps of each operative procedure."

Just how well this is done cannot be fully appreciated until one has given enough time to each picture to master its details. It cannot be hurriedly cast aside after having merely glanced at the sketch. Perhaps the author is a bit over-enthusiastic in the statement that "even the student without previous operative training can

comprehend modern operative technic," from a study of this work.

It must be admitted, however, that one who had had a certain amount of operative experience could certainly follow Dr. Hirst's technic, even in its finer aspects, by a careful perusal of these illustrations. Certainly those dealing with perineorrhaphy are beautifully and accurately done. This technic, coupled with a thorough knowledge of the character of injuries inflicted by the passage of the child, should give better pelvic floors than have heretofore been obtained. The author is entirely correct in the statement that "it is a reproach to medicine that such enormous numbers of women require the secondary repair of the pelvic floor."

In performing the interposition operation for prolapse the author very properly calls attention to the limited indications for this operation and warns against its performance in young women with active husbands. The illustrations demonstrating the technic of this operation are very excellent.

There is nothing in the Atlas to show the newer operations upon the cervix. Little or no attention is given to chronic endocervicitis and the pelvic pathology that may result from a chronically infected cervix. In the light of our present day knowledge of chronic endocervicitis, trachelorrhaphy should very seldom if ever be performed. Excision of the cervical mucosa should replace trachelorrhaphy. By the excision method, which is in no sense an amputation, the infected area can be eradicated and all denuded areas covered with healthy mucous membrane. Amputation of the cervix by the older methods not only fails in these respects, but actually destroys most of the cervical body.

The operation recommended for retroversion and the one the author himself favors, is a combination of the Kelly and Alexander suspension operation done through a Pfannenstiel incision. The pictures depicting this procedure are excellent, but poorly arranged in the text. The advantages of this type of suspension are many and real and should meet with general approval.

In hysterectomy the author performs the supravaginal operation in the usual case reserving pan hysterectomy for malignant

growths or chronic pelvic infections. With the perfect technic for pan hysterectomy that it is possible to develop, it would seem advisable to remove the cervix as a routine procedure. Cancer of the retained cervix has been discovered three times in the last five years in Polak's Clinic at the Long Island College Hospital.

Extraperitoneal Caesarean section is strongly recommended for that class of cases in which infection is suspected. The technic shown is essentially that of Veit and Fromme.

A section relating to the surgery of the mammary gland concludes the volume.

HARVEY B. MATTHEWS.

THE PRACTICAL MEDICINE SERIES.

THE PRACTICAL MEDICINE SERIES. Comprising eight volumes on the year's progress in medicine and surgery. Under the general editorial charge of Charles L. Mix, A. M., M. D. Series 1919, Volume 2, General Surgery, edited by Albert J. Ochsner, M. D. Chicago, The Year Book Publishers, 1919. 624 pages. Illustrated. Plates. 12mo. Cloth, \$2.50. Prices of series of eight volumes, \$10.00.

The surgical volume of "Practical Medicine Series," edited by Dr. Albert J. Ochsner contains a wealth of valuable information not only for the surgical men but also some very practical suggestions for the general practitioner. Much of the material is a resumé up to date of the work done in the Allied Armies and is therefore to be read with much interest. All the branches of general surgery are covered from the question of anaesthesia to the special organs. A work prepared under the supervision of Dr. Ochsner does not need to be enlarged upon as the material contained is selected and of the highest quality. It would be difficult to specify one section above another as all are equally valuable.

E. W. S.

CEREBROSPINAL FLUID.

CEREBROSPINAL FLUID IN HEALTH AND IN DISEASE. By Abraham Levinson, B. S., M. D. St. Louis, C. V. Mosby Company, 1919. 231 pages. Illustrated. Plates. 8vo. Cloth, \$3.00.

Dr. Levinson deserves the highest praise for having produced such an admirable volume. He has brought together all that is at present known about the spinal fluid, discussed it in a scholarly manner and as one of large personal experience in the examination of spinal fluid, and presented his facts most clearly and attractively. After preliminary chapters on the history of the spinal fluid, its physiology and methods of obtaining it from the body, there are excellent chapters on the properties of normal and pathological fluids. The reviewer's favorite chapter is the one dealing with methods of examination. This is a model which all technical writers could profitably study. All too often writers of laboratory text-books fail to describe tests clearly or fallacies long since exploded are handed down from edition to edition or, most exasperating of all, one searches in vain through volumes for a direction or explanation on some technical point the omission of which indicates the author is not

himself a laboratory worker. Dr. Levinson concludes with chapters on the characteristics of spinal fluid in many diseases and a practical chapter on intra-spinal treatment.

E. B. SMITH.

COLLOIDS IN BIOLOGY AND MEDICINE.

COLLOIDS IN BIOLOGY AND MEDICINE. By Prof. H. Bechhold. Authorized translation from the Second German Edition, with notes and emendations by Jesse G. M. Bullowa, A. B., M. D. New York, D. Van Nostrand Company, 1919. 464 pages. Illustrated. 8vo. Cloth, \$5.00.

This is a very timely book, for the ever increasing literature concerning the application of colloidal chemistry to biological and hence to medical problems is making it hard for the physician to keep abreast of the times.

The author has divided the text into four parts. Part one is entitled "An Introduction to the Study of Colloids." In this part the author has presented a clear picture of the fundamental principles of the colloidal state of matter including methods of colloidal research.

In part two "The Biocolloids" are discussed. In the study of biocolloids, the compounds which occur in living matter in the colloidal state are described and their salient reactions are presented. Perhaps, the most interesting chapter in part two is the chapter on "Immunity Reactions." This chapter is by no means complete but it is very suggestive.

Part three deals with "The Organism as a Colloid System." The colloidal nature of living matter is clearly demonstrated. The various physiological and pathological phenomena are discussed from a colloidal standpoint, and much valuable data are presented. The chapter on growth and the chapter on secretion and excretion are especially instructive.

In part four, which is entitled "Toxicology and Pharmacology," the action of foreign chemical substances and organisms are considered.

Altogether, the book is well worth having on one's shelf. The style is at once easy and comprehensive.

There are some two thousand references to original literature given.

MATTHEW STEEL.

MENTAL HYGIENE OF CHILDHOOD.

THE MENTAL HYGIENE OF CHILDHOOD. By William A. White, M. D., Superintendent of Saint Elizabeth's Hospital, Washington, D. C. Boston, Little, Brown & Company, 1919. 193 pages. 12mo. Cloth, \$1.35. (Mind and Health Series.)

The author is well known to neurologists and psychiatrists and probably also to the general public for whom this volume is intended. It is apparent to every one interested in children that a study of child life is one of the great needs of physicians, teachers and parents. All of the studies thus far have been from the standpoint of the adult and not from the standpoint of the child. The author reviews the attitude which formerly existed toward children

in ancient times and points out that comparatively recently only has the child been given the rights which should have been his from the beginning. As an example of this children's courts have been established, and societies for their protection formed in practically all cities in the United States.

The author discusses the sexual life of the child from the standpoint of Freud and no doubt will have much criticism on the one hand and over enthusiasm on the other. There is no question that this phase has been neglected but the instruction and enlightenment which the child receives along this line should come from the parents. If they are not capable of imparting this knowledge then it should be part of their religious training. As it is, the subject has been more or less taboo and its consequences are reflected years afterward in the psychoses and neuroses.

While the author's theories will not meet with universal agreement there is no doubt that further study of childhood is indicated.

S. R. LEAHY.

OUTLINES OF PSYCHIATRY.

OUTLINES OF PSYCHIATRY. By William A. White, M. D., Superintendent of Saint Elizabeth's Hospital, Washington, D. C. Seventh Edition. Washington, Nervous and Mental Disease Publishing Co., 1919. 345 pages. 8vo. Paper, \$3.50. (Nervous & Mental Disease Monograph Series No. 1.)

The latest edition of this work lives up to its reputation as probably the best published in the English language. The modern conceptions of Psychiatry and of Psychology as applied to mental diseases are set forth. The treatment of mental diseases in general is reviewed and modern methods outlined.

The clinical part is devoted to a description of the various mental diseases and their etiology discussed. All the modern theories and publications of note are referred to and often incorporated in the text in order to bring the discussion up to the last minute.

The third part is devoted to outlines of the various methods for the examination of mental patients and presented in such a way that they may be understood by the student as well as by the graduate physician.

S. R. LEAHY.

PSYCHIATRIC-NEUROLOGIC EXAMINATION METHODS.

PSYCHIATRIC-NEUROLOGIC EXAMINATION METHODS, with special reference to the signs and symptoms. By Dr. August Wimmer, authorized translation by Andrew W. Hoishelt, M. D. St. Louis, C. V. Mosby Company, 1919. 177 pp. Illustrated. 8vo. Cloth, \$2.00.

In "Psychiatric-Neurologic Examination Methods," Dr. August Wimmer, Director of

the St. Hans Hospital of Denmark, has compiled an elaborate scheme for the examination of nervous and insane patients, in a work of some one hundred and seventy-five pages. The author states that it is designed for the use of students and physicians in general. It is a valuable little book and comprises a good deal more than its modest title would imply. While it falls short of being a work on diagnostics, it is a good deal more than a mere history outline, for the author discusses his headings, frequently in detail, as he goes along. The first section of the book is devoted to the examination of the psychic state and includes not only tests for the determination of insanity, but also for the various degrees of defective mentality. The second portion of the work is devoted to the somatic examination from a neurological standpoint.

The work of translation and adaptation of the text to American readers has been creditably performed by Dr. Andrew W. Hoisholt of Leland Stanford, Jr., University.

LONG ISLAND MEDICAL JOURNAL. BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

COLLOIDS IN BIOLOGY AND MEDICINE. By Prof. H. Bechhold. Authorized translation from the Second German Edition, with Notes and Emendations by Jesse G. M. Bullowa, A. B., M. D. New York, D. Van Nostrand Company, 1919. 464 pages. Illustrated. 8vo. Cloth, \$5.00.

COLLOID CHEMISTRY; an introduction, with some practical applications. By Jerome Alexander, M. Sc. New York, D. Van Nostrand Company, 1919. 90 pages. Illustrated. 12mo. Cloth, \$1.00.

THE MENTAL HYGIENE OF CHILDHOOD. By William A. White, M. D. Boston, Little, Brown, and Company, 1919. 193 pages. 12mo. Cloth, \$1.35. (Mind and Health Series).

ATLAS OF OPERATIVE GYNAECOLOGY. By Barton Cooke Hirst, M. D. Phila. & London, J. B. Lippincott Company, 1919. 292 pages. 164 plates; 46 figures. 4to. Cloth, \$7.00.

THOUGHTS OF A PSYCHIATRIST ON THE WAR AND AFTER. By William A. White, M. D. New York, Paul B. Hoeber, 1919. 137 pages. 12mo. \$1.75.

EXPERIMENTAL PHARMACOLOGY By Hugh McGuigan, Ph. D., M. D. Phila. & New York, Lea and Febiger, 1919. 251 pages. Illustrated. Plates. 8vo. \$2.75.

SOCIAL WORK. Essays on the Meeting-Ground of Doctor and Social Worker. By Richard C. Cabot, M. D. Boston & New York, Houghton Mifflin Company, 1919. 188 pages. 12mo. \$1.50.

COLLECTED PAPERS OF THE MAYO CLINIC, Rochester, Minnesota. Volume 10, 1918. Phila. & London, W. B. Saunders Company, 1919. 1196 pages. Illustrated. 8vo. Cloth, \$8.50.





